



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

MEETING MATERIALS

February 6, 2013

CALTRANS

BAY AREA TOLL AUTHORITY

CALIFORNIA TRANSPORTATION COMMISSION



Letter of Transmittal

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Program Management Team (PMT)

RE: TBPOC Meeting Materials Packet – February 6, 2013

Herewith is the TBPOC Meeting Materials Packet for the February 6th meeting. The packet includes memoranda and reports that will be presented at the meeting. A Table of Contents is provided following the Agenda to help locate specific topics.

TBPOC MEETING
February 6, 2013, 10:00am – 1:00pm
325 Burma Road, Oakland CA
TBPOC-PMT pre-briefing: 10:00am – 10:30am
TBPOC meeting: 10:30am – 12:00pm
TBPOC-Peer Review Panel meeting: 12:00pm – 1:00pm

	Topic	Presenter	Time	Desired Outcome
1.	CHAIR'S REPORT	S. Heminger, BATA		Information
2.	CONSENT CALENDAR			
	a. TBPOC Meeting Minutes	A. Fremier, BATA		Approval
	1. January 3, 2013 Meeting Minutes*			
	2. January 10, 2013 Conference Call Minutes*			
	3. January 25, 2013 Conference Call Minutes*			
	b. Contract Change Orders (CCOs):			
	1. SAS CCO 72 S0 & S1 (Modifications to LED Aviation, Messenger Cable, and Pull Box Bracket Interference) *	D. Noel, CTC		Approval
3.	PROGRESS REPORTS			
	a. 2012 Fourth Quarter Project Progress and Financial Update **	A. Fremier, BATA	5 min	Approval
	b. FHWA 2012 Annual Report*	T. Anziano, CA	5 min	Approval
4.	PROGRAM ISSUES			
	a. Bay Bridge East Span Opening Update	S. Maller, CTC	10 min	Information
	b. Public Information Office (PIO) Update	PMT	10 min	Information
	c. Capital Outlay Support (COS) Update*	A. Banani, CT	25 min	Approval
	d. Sawtooth Building Improvements Funding Update*	T. Anziano, CT	25 min	Approval
5.	SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES			
	a. Corridor Update/ Schedule*	T. Anziano, CT	5 min	Information
	b. Foundation Inspections Update	T. Anziano, CT	5 min	Information
6.	OTHER BUSINESS			
Next TBPOC Meeting: March 7, 2013, 10:00am – 1:00pm 1220 N Street, Sacramento, CA				

* Attachments

** Attachments at end of binder

*** Attachments to be sent under separate cover

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TBPOC MEETING February 6, 2013

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3	3	PROGRESS REPORTS a. 2012 Fourth Quarter Project Progress and Financial Update** b. FHWA 2012 Annual Report*
4	4	PROGRAM ISSUES a. Bay Bridge East Span Opening Update b. Public Information Office (PIO) Update c. Capital Outlay Support (COS) Update* d. Sawtooth Building Improvements Funding Update***
5	5	SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES a. Corridor Update/Schedule* b. Foundation Inspections Update
6	6	OTHER BUSINESS

* Attachments

** Attachments at end of binder

*** Attachments to be sent under separate cover

ITEM 1: CHAIR'S REPORT

No Attachments

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Andrew Fremier, Deputy Executive Director, Operations, BATA/MTC

RE: Agenda No. - 2a1
Consent Calendar
Item- TBPOC Meeting Minutes
January 3, 2013 Meeting Minutes

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the January 3, 2013 Meeting Minutes.

Attachment(s):
January 3, 2013 Meeting Minutes



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

TBPOC MEETING MINUTES

January 3, 2013, 11:00 AM – 1:00 PM

Attendees: TBPOC Members: Steve Heminger (Chair), Bimla Rhinehart, and Malcolm Dougherty
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller
Participants: Karin Betts, Bill Casey, Michele DiFrancia, Rich Foley, John Goodwin, Beatriz Lacson, Richard Land, Peter Lee (via phone), Brian Maroney, Bart Ney, Dina Noel, Mo Pazooki, Bijan Sartipi, Saeed Shahmirzai, Trish Stoops, Ken Terpstra, and Karen Wang

Convened: 10:59 AM

Items		Action
1.	CHAIR'S REPORT <ul style="list-style-type: none">The Chair extended a Happy New Year greeting to all.	
2.	CONSENT CALENDAR <ul style="list-style-type: none">a. TBPOC Meeting Minutes<ul style="list-style-type: none">1. December 13, 2012 Meeting Minutesb. Contract Change Orders (CCOs)<ul style="list-style-type: none">1. Yerba Buena Island Transition Structures (YBITS) No. 1 CCO 159-SO (Replace Existing YBI Tunnel Lighting), \$4,624,200<ul style="list-style-type: none">This item was removed from the Consent Calendar to discuss why there are two different light treatments being installed in two different directions of the tunnel.o In response to the Chair's inquiry, S. Shahmirzai indicated that LED lighting on the upper deck (eastbound) presents a technical issue with the tunnel configuration. It would cost an additional \$1M approximately for LED to also be installed on the upper deck, but this would need to be further evaluated	<ul style="list-style-type: none">The TBPOC APPROVED the Consent Calendar as presented, minus Item 2b1 which was pulled for discussion, then APPROVED.

(Continued)

Items	Action
<p>by staff to do so.</p> <p>2. Self-Anchored Suspension (SAS) Superstructure CCO 279-S0 (Painting Mitigations), \$2,194,317</p>	
<p>3. PROGRESS REPORTS</p> <p>a. Project Progress and Financial Update December 2012</p> <ul style="list-style-type: none"> • A. Fremier presented the December 2012 monthly report for TBPOC approval. 	<ul style="list-style-type: none"> • The TBPOC APPROVED the Project Progress and Financial Update December 2012.
<p>4. PROGRAM ISSUES</p> <p>a. Bay Bridge East Span Opening Update</p> <ul style="list-style-type: none"> • S. Maller reported that the follow-up meeting with Business, Transportation and Housing Secretary B. Kelly and staff members of the Governor's office and California Highway Patrol on December 20 was postponed. Request for use of public funds is on hold until the meeting is re-scheduled. Meanwhile, Bay Bridge Alliance (BBA) is continuing with the private fundraising effort. <p>b. Public Information Office (PIO) Update</p> <ul style="list-style-type: none"> • The Chair reported that he was in discussion with Secretary B. Kelly regarding a replacement of services, which will feature a larger role for BATA than previously existed. He is optimistic that the Program can recover and a solution will be reached in the next few days, so as to avoid further disruption and get back to doing regular business. It is anticipated that the scope will reflect a reduced level of effort. ○ M. Dougherty noted that certain scope items of the existing contract was found objectionable by some entities and that the PIO contract cancellation is in no way a reflection on B. Ney and PIO team's outstanding work. ○ B. Ney indicated that barring any new information, PIO will transition out 	<ul style="list-style-type: none"> • Staff to schedule a TBPOC conference call in the next few days to discuss the status of the PIO contract.

(Continued)

Items	Action
<p>next Tuesday.</p> <ul style="list-style-type: none">c. IERBYS Building Improvements Update<ul style="list-style-type: none">• K. Terpstra gave an update on the Inter-urban Electric Railway Bridge Yard Shop (IERBYS) (Sawtooth) building temporary improvements and related items covering relocation of all bridge maintenance staff, IERBYS improvements design package, seismic retrofit, and cost estimate (handed out to TBPOC and PMT members).○ Discussion items included short-term and long-term purpose of the building, direction in light of recent events, outside space scope, SAS contractor participation, seismic requirements, potential hazmat issue, handling by CCO, cost and funding.○ The Chair conveyed the Committee's support of the building improvement work, and directed staff to revise the estimate to include existing building foundation investigation and seismic retrofit.	<ul style="list-style-type: none">• Staff to submit a revised cost estimate, as discussed, for TBPOC action at the next conference call.
<p>5. SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES</p> <ul style="list-style-type: none">a. Corridor Update/Schedules<ul style="list-style-type: none">• T. Anziano provided the following in addition to what was discussed at the TBPOC/PMT pre-briefing.○ The weather-related OTD2 schedule slippage is being closely monitored. A healthy balance of float is keeping it contained and the project on schedule to meet SSO.○ In response to queries regarding the Hinge K, bike path and tower elevator work shown on the ABF October summary schedule, T. Stoops reported that ABF has done some recent re-scheduling which will be reflected in a January update.b. Foundation Inspections Update	

(Continued)

Items	Action
<ul style="list-style-type: none"> • Discussed at the TBPOC/PMT pre-briefing. ○ T. Anziano noted that pertinent data will be forwarded to the Peer Review Panel for consideration and discussion in February 2013, concurrent with the Federal Highway Administration (FHWA) review. c. Update of SSO Achievement <ul style="list-style-type: none"> • Discussed at the TBPOC/PMT pre-briefing. d. YBI Temporary Bike-Pedestrian Counterweight <ul style="list-style-type: none"> • B. Maroney gave an update on the temporary counterweight for the south side of the eastbound Yerba Buena Island Transition Structure. ○ A counterweight made of steel could replace the current temporary counterweight made of concrete until the new bike path weights are loaded onto the structure. TBPOC confirmation or redirection on this matter was requested. The steel will likely come from the United States. ○ Discussion items included reasons for choosing the current and replacement counterweights, safety screen and other alternatives, construction team's position, and cost. 	<ul style="list-style-type: none"> • Staff to explore additional safety screen alternatives and bring back to the TBPOC in another month or two, with an explanation of the contractor's means and methods, and bring back with C. Endress and also include an update on his Architectural Items list.
<p>6. DUMBARTON BRIDGE SEISMIC RETROFIT UPDATE</p> <ul style="list-style-type: none"> a. Completion Event <ul style="list-style-type: none"> • B. Ney reported that a media outreach was not achieved for the media event intended to showcase activities leading to the completion of the project. ○ M. Pazooki indicated SSO completion is scheduled for this Friday, and that the SSO completion event celebration will be held between now and mid-February. ○ Per the Chair, Department and BATA PIO staff to take the lead in scheduling/ 	

(Continued)

Items	Action
organizing the event in the absence of a PIO contract.	
7. OTHER BUSINESS <ul style="list-style-type: none">• The next TBPOC meeting is on February 7, 2013, 10:00am – 1:00pm, in Oakland.○ The TBPOC will also meet with the Peer Review Panel at that time.○ A TBPOC conference call will be scheduled between now and February 7, 2013.	

Adjourned: 12:00 PM

TBPOC MEETING MINUTES
January 3, 2013, 10:00 AM – 1:00 PM

APPROVED BY:

STEVE HEMINGER, TBPOC Chair
Executive Director, Bay Area Toll Authority

Date

BIMLA G. RHINEHART, TBPOC Vice-Chair
Executive Director, California Transportation Commission

Date

MALCOLM DOUGHERTY
Director, California Department of Transportation

Date

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Andrew Fremier, Deputy Executive Director, Operations, BATA/MTC

RE: Agenda No. - 2a2
Consent Calendar
Item- TBPOC Meeting Minutes
January 10, 2013 Conference Call Minutes

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the January 10, 2013 Conference Call Minutes.

Attachment(s):
January 10, 2013 Conference Call Minutes



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

CONFERENCE CALL MINUTES January 10, 2013, 4:00 PM – 5:00 PM

Attendees: TBPOC Members: Steve Heminger (Chair), Bimla Rhinehart and Malcolm Dougherty
PMT Members: Tony Anziano and Andrew Fremier
Participants: Amer Bata, Michele DiFrancia, John Goodwin, Ted Hall, Bob Haus, Beatriz Lacson, Rick Land, Peter Lee, Dina Noel, Mo Pazooki, RandyRentschler, Bijan Sartipi, Will Shuck, Brigetta Smith, and Ken Terpstra

Convened: 4:05 PM

Items		Action
1.	CHAIR'S REPORT <ul style="list-style-type: none">• None given.	
2.	DUMBARTON BRIDGE SEISMIC RETROFIT UPDATE <ul style="list-style-type: none">a. Contract Change Order (CCO) 100-S0 (Vista Point Improvements), Not to Exceed \$1,100,000<ul style="list-style-type: none">• D. Noel presented for TBPOC approval CCO 100 in a not-to-exceed amount of \$1,100,000, to provide improvements to the planned vista points at the eastern and western approaches of the Dumbarton Bridge.○ Discussion items included: BCDC permit requirements, historical background, scope, old public access vs. improved public access, pros and cons of options, legal issues to using a separate contract, non-compliance repercussion, and TBPOC/PMT consensus.○ The TBPOC was advised that the new contract option would not be in compliance with current BCDC permit requirements and a permit amendment would need to be requested.b. Update on Seismic Completion Event	<ul style="list-style-type: none">• The TBPOC APPROVED a separate motion to proceed with the improvements as a new contract.

(Continued)

	Items	Action
	<ul style="list-style-type: none"> J. Goodwin reported that the event date has been set for Thursday, February 21, at 10:00 AM, to be attended by media and state/local officials, and would be similar in scope to the Antioch Bridge seismic celebration. 	<ul style="list-style-type: none"> Staff to work on a time that would accommodate the majority of the principal attendees.
3.	<p>PROGRAM ISSUES</p> <p>a. Public Information Office (PIO) Update</p> <ul style="list-style-type: none"> R. Rentschler introduced the Department's Deputy Director of External Affairs W. Shuck with whom he has been working since the PIO contract cancellation. They gave an update on public information-related activities, and presented six (6) specific recommendations - referred to by the Chair as Plan B - for TBPOC approval, the sixth item of which is as follows: "That BATA will establish and post openings for up to five (5) full-time temporary positions to maintain essential PIO services. Actual hiring decisions will be made given the level of support needed to assist in-house Caltrans and BATA staff, and the work needed to support media and public outreach activities and to deliver the upcoming Opening Celebration and subsequent construction and demolition activities in the Bay Bridge corridor." R. Rentschler indicated that the Governor's office has reviewed and approved the plan thru the new bridge opening and start of the existing bridge demolition. Discussion items included specific PIO personnel needs, individuals identified for the full-time temporary positions, hiring method, and BATA role. <p>b. Sawtooth Building Improvements Update</p> <ul style="list-style-type: none"> K. Terpstra requested TBPOC approval/direction to: <ol style="list-style-type: none"> Negotiate the following CCOs under 	<ul style="list-style-type: none"> The TBPOC APPROVED Plan B, as presented. Staff to provide an update at the TBPOC February 7, 2013 meeting. The TBPOC deferred action on this item until their February 7, 2013 meeting.

(Continued)

Items	Action
<p>the current SAS contract:</p> <ul style="list-style-type: none"> a) Relocation of all Bridge Maintenance Staff (excluding Paint Shop staff), not to exceed (NTE) \$200,000 b) Sawtooth Building Preliminary Foundation Investigation, NTE \$900,000 c) Soft Demolition of Sawtooth Facility Interior, NTE \$300,000; and <p>2. Increase the HNTB Design Task Order by \$590,000 to provide design services for architectural, landscape, structural engineering and civil engineering support.</p> <ul style="list-style-type: none"> ○ The work is being performed for use of the building for the Labor Day 2013 bridge opening and to support Maintenance use requirements. ○ In response to the Chair's query regarding the cost estimate requested by the TBPOC for Item 1b), K. Terpstra indicated that one could not be developed until a geotechnical investigation is determined; however, he did roughly estimate \$4M for construction, \$4M for seismic, and \$2M for risk items, for a total of approximately \$10M. ○ A. Fremier provided the historical background in the context of the Maintenance Complex Project, Phase 3 of which is the Sawtooth Building retrofit. ○ The issue of how to fund the above-mentioned services was discussed. <ul style="list-style-type: none"> ➤ The Chair noted that rehab funds could be advanced, for the sake of moving ahead for opening day, as long as reimbursement by the State Highway Operation and Protection Program (SHOPP) is assured. ➤ B. Rhinehart cautioned against looking to money-strapped SHOPP for funding assistance. 	

(Continued)

Items	Action
<ul style="list-style-type: none"> ➤ M. Dougherty noted SHOPP reimbursement might be difficult, and suggested deferring TBPOC action until other sources of funding have been explored. 	
<p>4. SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES</p> <ul style="list-style-type: none"> a. Foundation Inspection Update <ul style="list-style-type: none"> • T. Anziano reported that the GamDat team will be briefing the PMT on January 28; FHWA review report should be ready to go next week. b. Bay Area Security Enhancements (BASE) <ul style="list-style-type: none"> • A. Fremier reported that a budget adjustment of \$31 million to purchase and install a security system on the new east span and upgrade the existing cameras on the west span was requested at the BATA Oversight Committee (OC) meeting yesterday. ○ A sub-committee has been formed to get a better defined scope of the project as compared to the Golden Gate Bridge security enhancements, to put the BATA OC at ease with its decision on the request. ○ The sub-committee is working with staff from CHP and Golden Gate Bridge, and will report back to the committee at the end of this month. 	<ul style="list-style-type: none"> • Staff to include a BASE update in the TBPOC February 7 meeting agenda.
<p>5. OTHER BUSINESS</p> <ul style="list-style-type: none"> a. West Span Fender Update <ul style="list-style-type: none"> • T. Anziano reported that a Director's Order is nearly in place to repair the damage on the tower fender of the western span of the Bay Bridge, which was struck by an oil tanker early Monday morning. ○ M. Dougherty indicated that there are several investigations going on, and that no structural damage to the bridge was found. 	

(Continued)

Items	Action
<p>b. DeSaulnier Letter</p> <ul style="list-style-type: none">• A. Fremier referred to Senator DeSaulnier's January 7, 2013 letter to the Chair requesting that BATA underwrite the \$100,000 cost of the Legislative Analyst's Office (LAO) independent review of the following specific issues:<ol style="list-style-type: none">1. "Design of the bridge to determine its ability to withstand a large earthquake;2. Bridge construction techniques as well as testing protocols and procedures to determine the possibility of construction defects and the significance of such potential defects."○ The Chair recalled that a previous peer review by the Army Corps of Engineers for Issue No. 1 cost \$1.4 million and the LAO request of \$100,000 for a broader analysis seems unrealistic.○ Discussion items included: what Issue No. 1 entails and what is being done so far in Issue No. 2, the number of investigations/reviews the bridge has undergone, expectations going forward, how to disseminate different reports. <p><u>Suspender Cable Update</u></p> <ul style="list-style-type: none">• T. Anziano reported that the testing of the suspender cable wires gave good compelling results. They performed well above specifications.	<ul style="list-style-type: none">• The Chair to formulate a response in coordination with Secretary B. Kelly.• The Department to compile all peer review efforts to which the design of the bridge has been subjected to determine its ability to withstand a large earthquake.

Adjourned: 5:00 PM

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TBPOC CONFERENCE CALL MINUTES

January 10, 2013, 4:00 PM – 5:00 PM

APPROVED BY:

STEVE HEMINGER, TBPOC Chair
Executive Director, Bay Area Toll Authority

Date

BIMLA G. RHINEHART, TBPOC Vice-Chair
Executive Director, California Transportation Commission

Date

MALCOLM DOUGHERTY
Director, California Department of Transportation

Date

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Andrew Fremier, Deputy Executive Director, Operations, BATA/MTC

RE: Agenda No. - 2a3
Consent Calendar
Item- TBPOC Meeting Minutes
January 25, 2013 Conference Call Minutes

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the January 25, 2013 Conference Call Minutes.

Attachment(s):
January 25, 2013 Conference Call Minutes



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

CONFERENCE CALL MINUTES January 25, 2013, 4:00 PM – 5:00 PM

Attendees: TBPOC Members: Steve Heminger (Chair), Bimla Rhinehart, and Malcolm Dougherty
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller
Participants: Michele DiFrancia, Rick Land, Peter Lee, Brian Maroney, and Randy Rentschler

Convened: 4:00 PM

Items		Action
1.	CHAIR'S REPORT <ul style="list-style-type: none">The Chair, S. Heminger, reported on the West Span Bay Lights testing of lights last Tuesday.	
2.	PROGRAM ISSUES <ul style="list-style-type: none">a. Public Information Office (PIO) UpdateR. Rentschler presented the PIO staffing/ hiring plan, as outlined in the TBPOC memo. The hiring plan will provide continuity. Bart Ney was extended an invitation to rejoin as a temporary employee of BATA, but he, as well as other WPI staff, declined the offer. It is anticipated that Andrew Gordon will serve as the new spokesperson, which will ensure a smooth transition.The rehired PIO team should be back on the premises within one week.When inquired whether an announcement should be released, it was decided best to combine with another bridge related media release. R. Rentschler indicated that he would discuss best approach with Secretary B. Kelly and W. Schuck.The project website is back online temporarily; BATA is still working out details with WPI.	<ul style="list-style-type: none">The TBPOC APPROVED the PIO staffing plan, as presented.

(Continued)

Items	Action
<p>b. Senate Transportation Committee Peer Review Request</p> <ul style="list-style-type: none">• The Chair has suggested that definition be placed on Senator DeSaulnier's request, to which other TBPOC members agreed.○ It was agreed that the TBPOC members, along with B. Maroney, will be meeting with Senator DeSaulnier on the afternoon of January 29 in Sacramento.○ There was also discussion re: modeling efforts and what can be accomplished for \$100K.○ The Chair requested that the TBPOC consider covering the suggested \$100K cost, as requested by Senator DeSaulnier. <p>c. Bay Bridge Opening Ceremony</p> <ul style="list-style-type: none">• A. Fremier noted the Bay Bridge Alliance (BBA) meeting held last Wednesday. The contract with KPIX (Channel 5) has been executed, and promotion of the bridge opening, within the confines of appropriate information, will begin around Superbowl Sunday (February 3).○ A. Fremier made a request of the Department (M. Dougherty and R. Land, specifically) re: loading requirements and BBA/ Channel 5 being permitted to make the public announcements of bridge walk/ run/ bike around the time of the Superbowl.○ Go/ no go dates in the TBPOC memo were also noted. Additionally, bridge walk/ run/ bike registration is scheduled to go live online by April 1, 2013, which is related to the previously mentioned loading factors/ allowed volumes of registrations.○ There is \$1.5-2.0M in soft sponsorship commitments to date. Chevron is also interested in being a corporate sponsor.○ The plan is to go forward to the BATA	

(Continued)

Items	Action
<p>Oversight Committee (OC) meeting on February 13 for a request of \$5.6M in TOPS (memo will be posted on the BATA website on February 6).</p> <ul style="list-style-type: none">○ Need to get assurances from the Governor's Office and Department re: public funding. TBPOC members will reach out to B. Kelly to secure needed approvals.○ The PMT was asked to attend the BATA OC meeting on February 13.○ The issue of charging bikes was also discussed.	
<p>3. OTHER BUSINESS</p> <ul style="list-style-type: none">• The TBPOC agreed to change the next TBPOC meeting date to February 6, 2013; exact time to be determined (to be held in the morning).• The PMT will receive a briefing re: GamDat on January 28. The FHWA report should be final soon. These reports will be disseminated to the Senate and Assembly Transportation Committees.	

Adjourned: 4:40 PM

(Continued)

TBPOC CONFERENCE CALL MINUTES

January 25, 2013, 4:00 PM – 5:00 PM

APPROVED BY:

STEVE HEMINGER, TBPOC Chair
Executive Director, Bay Area Toll Authority

Date

BIMLA G. RHINEHART, TBPOC Vice-Chair
Executive Director, California Transportation Commission

Date

MALCOLM DOUGHERTY
Director, California Department of Transportation

Date

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: William S. Casey, Supervising T.E., Caltrans

RE: Agenda No. -

Item- Consent Calendar – Contract Change Orders (CCOs)
Self-Anchored Suspension (SAS) CCO 72-S1 –
Additional Cable Electrical

Recommendation:

APPROVAL

Cost:

CCO 72-S0	\$ 688,678.00	Issued July 2012
CCO 72-S1	\$1,651,903.00	

Schedule Impacts:

N/A

Discussion:

CCO 72-S1 in the amount of \$1,651,903.00 is the final negotiated price for additional changes to cable and tower electrical.

Contract Change Order (CCO) 72-S0 modified the cable band stanchions and messenger cable, and CCO 167-S0 changed the Main Span Aesthetic Light Pylon Marker (MAP), Main Span Aesthetic Light Downward Flood (MAD), and Main Span Safety Light Roadway (MSR) light fixtures from metal halide to LED. This change order will change Aviation Warning System lights on the cable to LED, and revise details for the Aviation Warning System, MAD, MSR and MAP light fixtures to support power and remote monitoring requirements for LED fixtures. The electrical changes required to support power and remote monitoring requirements of LED fixtures include revising conduit, adding power supplies and relays to the suspender cable aviation lighting pull boxes, adding a remote aviation light monitoring box to the Tower Head, adding LED driver boxes, replacing fusible disconnects with non-fusible disconnect switches, adding LED driver boxes in pull boxes servicing MAD and MSR light fixtures, and revising strong motion system locations and conduits. The change to LED fixtures also increased the weight on the cable stanchion which has resulted in higher installation cost.

In addition, this change includes miscellaneous cable and tower electrical items including adding an additional aviation light to the Tower Head to achieve the required light level, revising the mounting to accommodate the additional light, modifying pull box brackets to accommodate liquidtight flexible metal conduit fittings and resolve installation conflicts, modifying the light assembly support attachment to the stanchion posts, painting cable mounted pull box brackets and aviation light mounts, modifying pull box brackets and performing an installation mockup, and installing a revised handrope stanchion.

The total cost for the additional changes to the cable and tower electrical, covered in the approved CCO 72-S0 and this change order is \$2,340,581.00.

Indirect costs including delays related to, but not limited to, Favco, additional maintenance expenses, and delays to removal of the T1 erection tower, platforms, stairs, and elevator will be addressed in a separate change order.

Attachment(s):

1. Draft CCO 72-S1
2. Draft CCO Memo 72-S1
3. Approved CCO & CCO Memo 72-S0
4. Approved CCO & CCO Memo 167-S0

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 72 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

To: **AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract.

NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Lump Sum:

ITEM 1.

- Revise details for aviation, Main Span Aesthetic Light Pylon Marker Light (MAP), Main Span Aesthetic Light Downward Flood Light (MAD), and Main Span Safety Light Roadway Light (MSR) fixtures to support LED.
- Add power supplies and relays to the suspender cable aviation lighting pull boxes.
- Add remote aviation light monitoring box, LED driver box, and an additional aviation warning LED fixture at the Tower Head.
- Replace fusible disconnects with non-fusible disconnect switches and add LED driver boxes in pull boxes PB-1F servicing MAD and MSR light fixtures.
- Revise strong motion system locations and conduits.
- Modify the light assembly support attachment to the stanchion posts.
- Paint the cable mounted pull box brackets (Types A, B, C, D, E, and F) and aviation light mounts on the cable in accordance with the requirements of Special Provisions Section 10-1.71 "CLEAN AND PAINT CABLE SYSTEM."
- Modify pull box brackets and perform an installation mockup.

Revise Special Provisions Section 10-3.14 "LIGHTING," subsection "AVIATION WARNING SYSTEM" as shown on page 3 of this change order.

Extra Work at Lump Sum..... \$1,601,935.50

Estimate of Increase in Contract Item at Contract Price:

ITEM 2.

Install revised handrope stanchion.

Item No. 67: ERECT PWS CABLE SYSTEM

19,987 KG (+0.42%) @ \$2.50 /KG =+\$49,967.50 (+0.42%)

The quantity increases shown herein for Item #67, when combined with the quantity shown in the Engineer's Estimate, and as modified by any previous change orders or revisions to dimensions made by the Engineer, shall be the final quantity for which payment will be made.

Total Cost for Increase in Contract Item..... \$49,967.50

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 72 Suppl. No. 1 Contract No. 04 - 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

The following revised plan sheets detail the changes addressed in this change order: 76R2, 93R13, 142R9, 212R5, 244R3, 245R2, 246R2, 247R6, 248R4, 250R5, 253R2, 254R2, 255R3, 258R2, 259R2, 261R6, 261S1R3, 261S2R3, 261S3R5, 261S4R4, 261S5R3, 261S6R1, 261S7R1, 261S8R2, 266R2, 267R2, 291R4, 295R5, 299R5, 333R3, 813R5, 813S2R5, 813S3R5, 813S4R1, and 813S6 (of 1204) as shown on sheets 4 through 38 of this change order.

This change order resolves the costs associated with Contractor Request for Information (RFI) numbers 2033, 2700, 2780R0, 2780R1, 2784, 2889, 3068, 3074, 3076R0, 3076R1, 3077, 3089, 3105, and 3119 with respect to changes listed above.

CHANGE ORDER COST AND TIME SUMMARY

(ITEM 1) Extra Work Lump Sum	\$1,601,935.50
(ITEM 2) Increase in Contract Items at Contract Prices	\$49,967.50
Total net pay for this change order	\$1,651,903.00


This sum constitutes full and complete compensation for furnishing all labor, material, tools and incidentals including all markups by reason of this change.

Any indirect costs for this cable electrical work will be addressed in a separate change order.

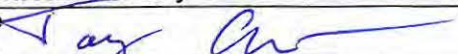
Estimated Cost: Increase ☒ Decrease ☐ \$1,651,903.00

By reason of this order the time of completion will be adjusted as follows: 0 Days

Submitted by

Signature 	Resident Engineer	William Casey, Supervising T.E.	Date 1-22-13
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Approval Recommended by

Signature 	Program Manager	Tony Anziano, Program Manager	Date 1/22/13
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Engineer Approval by

Signature	Program Manager	Tony Anziano, Program Manager	Date
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We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature	(Print name and title)	Date
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CONTRACT CHANGE ORDER MEMORANDUM

DATE: 1/22/2013 Page 1 of 2

TO: Tony Anziano, Program Manager /			FILE: E.A. 04 - 0120F4	
FROM: Darryl Schram, Senior TE			CO-RTE-PM SF-80-13.2/13.9	
FED. NO.				
CCO#: 72	SUPPLEMENT#: 1	Category Code: CBPT	CONTINGENCY BALANCE (incl. this change) \$93,692,438.99	
COST: \$1,651,903.00 INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: Additional Cable Electrical			PROJECT DESCRIPTION: CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE	
Original Contract Time: 2490 Day(s)	Time Adj. This Change: 0 Day(s)	Previously Approved CCO Time Adjustments: 501 Day(s)	Percentage Time Adjusted: (including this change) 20 %	Total # of Unreconciled Deferred Time CCO(s): (including this change) 3

THIS CHANGE ORDER PROVIDES FOR:

Revising details for aviation, Main Span Aesthetic Light Pylon Marker Light (MAP), Main Span Aesthetic Light Downward Flood Light (MAD), and Main Span Safety Light Roadway Light (MSR) fixtures to support LED. Adding power supplies and relays to the suspender cable aviation lighting pull boxes. Adding remote aviation light monitoring box, LED driver box, and an additional aviation warning LED fixture at the Tower Head. Replacing fusible disconnects with non-fusible disconnect switches and adding LED driver boxes in pull boxes PB-1F servicing MAD and MSR light fixtures. Revising strong motion system locations and conduits. Modifying the light assembly support attachment to the stanchion posts. Painting the cable mounted pull box brackets and aviation light mounts. Modifying pull box brackets and performing an installation mockup. Installing revised handrope stanchion.

Revising Special Provisions Section 10-3.14 "LIGHTING," subsection "AVIATION WARNING SYSTEM."

Contract Change Order (CCO) 72 S0 modified the cable band stanchions and messenger cable. This change order will make additional changes to cable electrical items. CCO 167 changed MAP, MAD, and MSR to LED. This change order will change aviation lights to LED in order to reduce power consumption and maintenance costs. To support power and remote monitoring requirements needed for these LED fixtures, the conduits will be revised, power supply will be added to the pull boxes, and an aviation light monitoring box will be added to the Tower Head. Driver boxes are also being added to support the additional power supply needed for LED fixtures. An additional aviation light is added to the Tower Head to achieve the required light level and the mounting is revised to accommodate the additional light. Pull box brackets are modified to accommodate liquidtight flexible metal conduit fittings and resolve installation conflicts. Revisions to the fixtures have added weight to the stanchions resulting in increased installation costs.

Indirect costs including delays related to, but not limited to, Favco, additional maintenance expenses, and delays to removal of the T1 erection tower, platforms, stairs, and elevator will be addressed in a separate change order.

This change order resolves the costs associated with Contractor Request for Information (RFI) numbers 2033, 2700, 2780R0, 2780R1, 2784, 2889, 3068, 3074, 3076R0, 3076R1, 3077, 3089, 3105, and 3119 with respect to changes listed above.

The total cost of this change order is \$1,601,935.50 lump sum and \$49,967.50 increase in contract items for a total cost of \$1,651,903.00, which can be financed from the contingency fund. The cumulative total of CCO 72 S0 and S1 is \$2,340,581.00. A detailed cost analysis is on file.

No time adjustment is warranted as this change order does not affect the controlling operation.

This change order has concurrence from William Casey (Supervising TE), Tony Anziano (Program Manager), Rich Foley (HQ Oversight), Wenyi Long (Design Oversight), Lina Ellis (Maintenance), and Jing Chen (District Design).


This change order is pending approval from The Toll Bridge Program Oversight Committee (TBPOC).

CONTRACT CHANGE ORDER MEMORANDUM

EA: 0120F4 CCO: 72 - 1

DATE: 1/22/2013

Page 2 of 2

CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer:	William Casey, Sup TE	Date 7/12/12	THIS REQUEST	TOTAL TO DATE	
Bridge Engineer:	CT Oversight, Wenyi Long, P.E.	Date 7/13/12	ITEMS	\$49,967.50	\$49,967.50
Project Engineer:	District Design, Jing Chen	Date 7/16/12	FORCE ACCOUNT	\$0.00	\$0.00
Project Manager:		Date	AGREED PRICE	\$1,601,935.50	\$1,601,935.50
FHWA Rep.:	HQ, Rich Foley	Date 7/12/12	ADJUSTMENT	\$0.00	\$688,678.00
Environmental:		Date	TOTAL	\$1,651,903.00	\$2,340,581.00
Other (specify):	TB Program Manager, Tony Anzian	Date 7/30/12	FEDERAL PARTICIPATION		
Other (specify):	Struct. Maint, Lina Ellis	Date 7/13/12	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING		
District Prior Approval By:	HQ, Larry Salhaney	Date 8/16/12	FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)		
HQ (Issue Approve) By:		Date	<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS		
Resident Engineer's Signature:		Date	FEDERAL FUNDING SOURCE	PERCENT	
			1/23/13		

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 72 Suppl. No. 0 Contract No. 04 - 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

To: AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract.

NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Adjustment of Compensation at Lump Sum:

Modify cable band stanchions, messenger cable, and messenger cable attachments.

The following revised plan sheets detail the changes addressed in this change order: 261R1, 261S1, 261S2, 261S3, 261S6, 261S7, 266R1, 752R2, 809R1, 812R1, 813R4, 813S1, 813S2R3, 813S3R2, 813S4, 813S5, 814R4, 814S1R1, and 815R2 (of 1204) as shown on sheets 2 through 20 of this change order.

This change order resolves the costs associated with Contractor Request for Information (RFI) numbers 270, 1237, 1433, 1456R0, 1456R1, 1568R0, 1568R1, 1907R2, 2404R0, and 2404R1 with respect to changes listed above.

For this work, the Contractor will receive a lump sum price of \$688,678.00. This sum constitutes full and complete compensation for furnishing all labor, material, tools and incidentals including all markups by reason of this change.


Adjustment of Compensation at Lump Sum..... \$688,678.00

Any electrical and painting shown on these plan sheets will be addressed in a separate change order.


Estimated Cost: Increase ☐ Decrease ☒ \$688,678.00

By reason of this order the time of completion will be adjusted as follows: 0 Days


Submitted by

Signature  Resident Engineer Darryl Schram, Senior T.E. Date 7/18/12

Approval Recommended by

Signature  Supervising Transportation Engineer William Casey, Supervising T.E. Date 7/19/12


Engineer Approval by

Signature  Supervising Transportation Engineer William Casey, Supervising T.E. Date 7-27-12

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature  (Print name and title) BRIAN A. PETERSEN - PROJECT DIRECTOR Date 25 JUL 12

CONTRACT CHANGE ORDER MEMORANDUM

DATE: 7/18/2012 Page 1 of 1

TO: Tony Anziano, Program Manager /

FILE: E.A. 04 - 0120F4

FROM: Darryl Schram, Senior TE

CO-RTE-PM SF-80-13.2/13.9

FED. NO.

CCO#: 72 SUPPLEMENT#: 0 Category Code: CBPT

CONTINGENCY BALANCE (incl. this change) **\$106,258,039.58**COST: \$688,678.00 INCREASE ☒ DECREASE ☐HEADQUARTERS APPROVAL REQUIRED? ☒ YES ☐ NO

SUPPLEMENTAL FUNDS PROVIDED: \$0.00

IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? ☒ YES ☐ NO**CCO DESCRIPTION:**

Cable Electrical

PROJECT DESCRIPTION:

CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE

Original Contract Time:	Time Adj. This Change:	Previously Approved CCO Time Adjustments:	Percentage Time Adjusted: (including this change)	Total # of Unreconciled Deferred Time CCO(s): (including this change)
2490 Day(s)	0 Day(s)	501 Day(s)	20 %	3

THIS CHANGE ORDER PROVIDES FOR:

Modifying cable band stanchions, messenger cable, and messenger cable attachments.

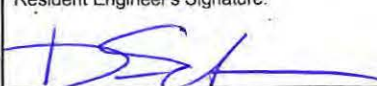

This change order clarifies and provides details missing from the Contract plans. The messenger cable is relocated to minimize its visual impact and to improve access to the cable mounted lights for maintenance. Stanchion details are modified to accommodate the anchor stanchion channels, safety gates, and additional pull boxes.

This change order resolves the costs associated with Contractor Request for Information (RFI) numbers 270, 1237, 1433, 1456R0, 1456R1, 1568R0, 1568R1, 1907R2, 2404R0, and 2404R1 with respect to changes listed above.

The total cost of this change order is \$688,678.00, which can be financed from the contingency fund. A detailed cost analysis is on file.

No time adjustment is warranted as this change order does not affect the controlling operation.

This change order has concurrence from William Casey (Supervising TE), Rich Foley (HQ Oversight), Ken Terpstra (Project Manager), Wenyi Long (Bridge Design), Lina Ellis (Maintenance), and Jing Chen (District Design).

CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer:	William Casey, Sup TE	Date 6/1/12	THIS REQUEST		TOTAL TO DATE
Bridge Engineer:	CT Oversight, Wenyi Long, P.E.	Date 6/1/12	ITEMS	\$0.00	\$0.00
Project Engineer:	District Design, Jing Chen	Date 6/5/12	FORCE ACCOUNT	\$0.00	\$0.00
Project Manager:	Proj Manager, Ken Terpstra	Date 6/28/12	AGREED PRICE	\$0.00	\$0.00
FHWA Rep.:		Date	ADJUSTMENT	\$688,678.00	\$688,678.00
Environmental:		Date	TOTAL	\$688,678.00	\$688,678.00
Other (specify):	HQ, Rich Foley	Date 6/4/12	FEDERAL PARTICIPATION		
Other (specify):	Struct. Maint, Lina Ellis	Date 6/6/12	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING		
District Prior Approval By:	HQ, Ken Darby	Date 4/16/08	FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)		
HQ (Issue Approve) By:		Date	<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS		
Resident Engineer's Signature:		Date	FEDERAL FUNDING SOURCE PERCENT		
					

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 167 Suppl. No. 0 Contract No. 04-0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

To: **AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract.

NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Lump Sum:

Item 1.

Furnish LED light fixtures in lieu of contract specified Metal Halide light fixtures for the 438 fixtures listed on Attachment A on sheet 5 of this change order. This work must meet all the requirements below and the attached revisions to Special Provisions Section 10-3.14 "LIGHTING" on sheets 6 through 13 of this change order.

I. Supplier Requirements

1. The selected LED fixture supplier shall be identified with the signed Change Order.
2. The supplier shall provide evidence that they have been in the business of street lighting or exterior large area lighting for a period of not less than 10 years.
3. A list with a minimum of 10 street lighting, or large area lighting projects successfully completed by the supplier shall be included with the signed Change Order. At least two of these projects must be from 8 or more years ago.

II. Submittals

The following submittals shall be submitted in the shop drawing process and be approved by the Engineer prior to start of production of the light fixtures. Each item shall be provided in the form of clear and concise statements and/or plans and drawings, which can be easily read and clearly interpreted. Each item shall also be clearly numbered to correspond with the following list. All items shall be assembled in the order indicated and secured or bound in a neat and orderly fashion for easy use and reference.

1. Computer generated illumination levels demonstrating compliance with the specified initial and maintained light levels and uniformities.
2. A copy of the photometric testing report performed per LM-79-08 and conducted by an NVLAP approved or CALiPER qualified testing laboratory. Include documents verifying laboratory accreditation.
3. Test data from the LED supplier taken per LM-80-08 guidelines to support the lamps' lumen maintenance predictions.
4. Provide technical information in the form of cut sheets for the Power Supplies verifying compliance to this specification for Harmonic Distortion, RF Interference, IP Rating, and Efficiency Rating.
5. Supply Surge Protection Device documentation verifying compliance with UL 1449 or UL 1238.
6. A written copy of the supplier's warranty covering all materials, workmanship, and labor for a period of 10 years or greater.

III. Lighting Criteria

- A. Computer Predicted Illumination Summaries shall be provided on a 20' x 20' grid illustrating the predicted initial and maintained illumination values and uniformities.
- B. The roadway lighting system shall illuminate the entire deck surface (driving lanes and shoulders) to a minimum of 2.15 initial average footcandles with a 3:1 maximum allowable average to minimum ratio.
- C. The supplier shall apply an L70 (70% lumen maintenance factor) for the maintained illuminance values. Maintained illuminance levels shall be 1.5 average footcandles with a 3:1 average to minimum ratio. The maintained footcandle for Belvedere area shall be 3.0.
- D. In lieu of item III.B, the supplier may employ a constant illumination scheme in which the maintained illumination levels are achieved initially and the output of the fixture is increased over time to assure the illumination levels are always met.
- E. In either case, the supplier must guarantee the illumination levels will be met for the entire warranty period.

IV. Fixture Design & Construction

- A. Fixture
 1. Construction

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 167 Suppl. No. 0 Contract No. 04 - 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

- a. The luminaire shall consist of an aluminum housing with tempered glass lens, gasketed to seal the internal LED light sources and internal optics. Each LED shall be individually visored to mitigate glare to oncoming traffic and other areas off the bridge deck. The fixture shall be IP-66 rated and the shape shall be closely similar in shape and size to the conceptual design of original contract's metal halide fixtures, unless otherwise approved by the Engineer.
- b. The front face of the housing shall be circular in shape with a smooth conical side view. It shall be of adequate size and mass to provide the necessary heat dissipation to limit the LED junction temperature to 90°C or less at an ambient temperature of 25°C. The LED's shall be circuited such that failure of a single LED does not result in the loss of the entire luminaire.
- c. The fixture assembly must be fabricated with materials and coatings that allow it to withstand a 3,000 hour salt spray test under ASTM B 117, this applies to all fixture types.
- d. Heat dissipation shall be by passive design. Fans or other mechanical cooling devices shall not be permitted.
- e. Heat dissipating fins shall be oriented to minimize the build-up of water or debris on the fixture and allow rain water to freely carry dust and debris away.
- f. If a photoelectric receptacle is to be included, a rain tight cap must be provided. The receptacle must comply with Section 86-6.08B(1), "Photoelectric Unit", of the Standard Specifications.
- g. A quick attaching safety cable shall be affixed to all units to secure the fixture to the mounting cable or pole.
- h. Fixtures shall be painted to match Federal Standard 595B ranges matching the Bridge Paint color.

2. Light Sources

- a. LED color temperature shall have a nominal color temperature of 4,250° Kelvin, +/- 250° K. L70 lumen maintenance of the LED's shall be rated for a minimum of 63,000 hours for all fixtures except for the MAM & MAP fixtures, which are rated for a minimum of 50,000 hours.
- b. The supplier shall supply the LED suppliers test data performed per LM-80-08 guidelines to support the lamps' lumen maintenance.

B. Structural Attachment

1. The individual cable light fixtures shall be designed to match the original contract's mounting configuration and no changes are allowed unless approved by the engineer.
2. The individual fixtures for the light poles shall be assembled to a welded tubular steel assembly that doubles as a wireway.
3. The tubular steel structure, fixtures, and all attachment points shall be designed by the supplier and approved by the Engineer.
4. Wiring for the light pole fixtures shall transition internally from the fixture to the structural attachment and from the structural attachment into the pole. There shall be no external conduits or SO Cords between the fixtures on the tubular steel structure.
5. All mountings and Structural attachments shall be hot-dipped galvanized and then powder coat painted to match the Bridge color.

C. Drivers & Wiring

1. Drivers, Control Boards, & all associated electrical equipment shall be mounted as per the original contract documents for all cable light fixtures, unless approved by the engineer. On the light poles they can be located inside the pole near the bottom across from the handhole opening.
2. Power Supplies shall be rated IP-66 minimum, have an efficiency of not less than 90% when operated at maximum load, and be power factor corrected (minimum 90%).
3. The RF interference of the power supplies and luminaires must meet Class A emission limits per Federal Communications Commission Title 47 Subpart B, Section 15 or EN61000-4-6.
4. The Total Harmonic Distortion (THD) of the power supply and fixtures shall be in compliance with EN61000-3-2.
5. The power supplies shall be rated to operate on a nominal 60 HZ, 480VAC input and rated for operation between temperatures of -25°C - 55°C.
6. The supplier shall supply a Surge Protection Device (SPD) to protect the fixtures from damage or failure due to transient voltages or currents. SPD must conform to UL 1449 or UL 1238, dependent upon the components used in the design.
7. A wire harness shall be provided by the fixture supplier to connect the LED Drivers and associated electrical equipment located at the bottom of the pole to the fixtures mounted at the top of the pole. The harnesses shall have quick connect plugs on both ends for easy installation and replacement of the drivers or fixtures and shall be encased in a plastic corrugated sleeve to protect it from abrasion inside the pole.

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 167 Suppl. No. 0 Contract No. 04-0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

8. All conductors running from the power supplies at the bottom of the pole to the fixtures at the top of the pole shall be run internal to either the pole or the structural attachment of the fixture to the pole. Externally run conduits or SO Cords shall not be permitted.

D. Testing

1. Prior to production, the supplier shall provide a sample fixture of each different model they intend to provide for testing and verification. The fixtures must have been previously tested by the supplier for verification of the Junction Temperature (90 C), LED Solder Point Temperature, and ambient air temperature adjacent to the solder point at maximum operating wattage. Placement of temperature sensors shall be as follows:
 - a. One device at the LED solder point to determine Solder Point Temperature.
 - b. One device adjacent to the solder point to measure internal ambient air temperature.
 - c. One device located at the center of the fixture at the point where the LED optical & mechanical assembly attaches to the heat sink.
 - d. Junction Temperature shall be calculated by adding the Solder Point Temperature to the LED supplier's rated thermal resistance in degrees Celsius per Watt.
2. The supplier shall supply their test data to the Department along with the production sample. Data shall include:
 - a. Maximum allowable operating power to the LED board in watts.
 - b. Input voltage to the fixture when the testing was conducted at the supplier's facility.
 - c. The LED supplier's rated thermal resistance of the LED in degrees Celsius per Watt.
3. All measurements shall be taken after the fixture has operated at maximum rated wattage for a minimum of 24 hours at an ambient temperature of 70°F (21°C) or greater.

V. Warranty for the LED fixtures and all related components procured under this change order:

- A. The supplier shall warrant or insure the products to be free from defects in materials and workmanship for a period of not less than 10 years. This warranty or insurance shall cover all materials and labor (including removal & installation) during the 10-year period.
- B. In the event that a fixture needs to be repaired or replaced within the 10-year warranty period, The Department will be responsible for the costs associated with lane closures & traffic control. The supplier shall be responsible for all costs associated with repair and/or replacement of the fixture including the necessary lifts and labor.
- C. The Supplier's warranty or insurance policy will be provided directly from the Supplier to the Department. Upon acceptance of the Work, the Department agrees to release the Contractor (ABFJV) and the electrical subcontractor (Bleyco Electric) from any and all liability, loss or damage, which may result directly or indirectly from any defects in materials or workmanship in the LED fixtures and all related components procured under this change order.

The scope described above and attached specifications for this change order shall govern over the contract Special Provisions, Standard Specifications and Standard Plans where any conflict exists.

For this work, the Contractor will receive a lump sum price of \$1,456,614.00. This sum constitutes full and complete compensation for furnishing all labor, material, tools and incidentals including all markups by reason of this change. The installation cost for all fixtures are already included in the original contract scope of work.

Extra Work at Lump Sum.....\$1,456,614.00

Extra Work at Force Account:

Item 2.

For any minor additional work as directed by the Engineer, necessary for fabrication and installation of the fixtures & other components, which cost is not covered by the lump sum amount above and the original scope of the contract.

Labor, equipment and material authorized by the Engineer, as necessary, will be paid in accordance with the provisions of Section 4-1.03D, "Extra Work" of the Standard Specifications and Section 5-1.24, "Force Account Payment" of the Special Provisions.

Estimated Cost of Extra Work at Force Account.....\$100,000.00

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 167 Suppl. No. 0 Contract No. 04-0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

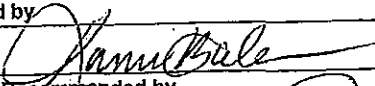
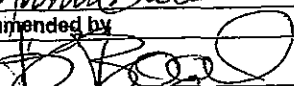
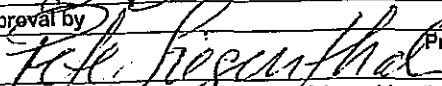
CHANGE ORDER COST AND TIME SUMMARY

(ITEM 1) Extra Work at Lump Sum.....	\$1,456,614.00
(ITEM 2) Extra Work at Force Account.....	\$100,000.00
Total net pay for this change order.....	\$1,556,614.00

This sum constitutes full and complete compensation for furnishing all labor, material, tools and incidentals including all markups by reason of this change.

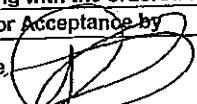
Estimated Cost: Increase ☒ Decrease ☐ \$1,556,614.00

By reason of this order the time of completion will be adjusted as follows: 0 Days

Submitted by			
Signature		Resident Engineer	
		Kannu Balan, Senior T.E.	Date 1-31-2011
Approval Recommended by			
Signature		Supervising Bridge Engineer	
		Brian Boal, Actg. Sup. B.E.	Date 31 JAN 2011
Engineer Approval by			
Signature		Principal Transportation Engineer	
		Peter Siegenthaler, Prin. T.E.	Date 2-10-11

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by			
Signature		(Print name and title)	Date
		BRIAN A. PETERSEN - PROJECT DIRECTOR	09 FEB 11

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 167 Suppl. No. 0 Contract No. 04 - 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

Attachment A**480V MAD, MAR, MAT, MAU, MSR, MAM, MSV, MAP FIXTURES
QUANTITIES AND NOTES**

FIXTURE TYPE	LAMP WATTAGE	QUANTITY	TENON MOUNT	WALL MOUNT	SUSPENSION CABLE	ROADWAY POLE	SUSPENDER BRACKET		Other	GENERAL LOCATION
							TYPE I	TYPE II		
MAD- 2C	400	42			42					downlights on
MAD- 3C	250	24			24					suspension cable
MAD- 4C	175	18			18					
MAR- 2-PB	400	4	4							lights on pier
MAR- 2A-PB	400	8	8							
MAT- 1A	1000	16	16							fixtures on bridge
MAT- 1B	1000	8	8							deck and crossbeam
MAT- 1C	1000	4	4							
MAT- 3D	250	8	8							
MAT- 3RC	250	8		8						
MAU- 2A	400	4							4	uplights inside pylon
MAU- 2D	400	80					52	28		uplights on
MAU- 3D	250	48					48			suspender brackets
MAU- 4D	175	30					30			
MAU- 5D	100	8	8							
MSR- 2C	400	31			31					roadway lights on
MSR- 2A-C	400	4			4					suspension cable
MSR- 2B-C	400	15			15					
MSR-	400	48				48				roadway lights
										on poles
MAM- 3	250	12				12				marker light on pole
MSV	2-35	16				16				Belvedere bike path pole
MAP	250	2							2	Tower Top
TOTALS		438	56	8	134	76	130	28	6	

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In Special Provisions Section 10-3.14 insert the following after the last subsection "TESTING":

GENERAL LED LUMINAIRE REQUIREMENTS

The following general LED luminaire requirements shall apply to all fixtures for this change order unless otherwise specified by application.

Definitions

CALiPER: Commercially Available LED Product Evaluation and Reporting. A US DOE program for the testing and monitoring of commercially available LED luminaires and lights.

correlated color temperature: A visible light characteristic of comparing a light source to a theoretical heated black body radiator. Measured in Kelvin.

footcandle: Unit of illuminance; a measurement of light.

IP: International Protection rating, sometimes referred to as ingress protection, that delineates the level at which foreign objects and water can intrude inside a device.

L70: The extrapolated life in hours of the luminaire when the luminous output depreciates 30 percent from initial values.

NVLAP: National Voluntary Laboratory Accreditation Program under the US DOE to accredit independent testing laboratories to qualify.

power factor: Ratio of the real power component to the total, complex, power component.

surge protection device: A subsystem or component that can protect the unit against short duration voltage and current surges.

Transportation Electrical Equipment Specifications: A package of standard specifications for transportation related electrical equipment to be used on State Highways. This document is compiled by the Department.

total harmonic distortion: Amount of higher frequency power on the power line.

Submittals

All luminaires are subject to initial acceptance testing prior to main delivery. Main deliveries may be subject to additional random sample testing.

Submit test units to the Department after the manufacturer's testing is completed. Include the manufacturer's testing data.

Product submittals must be accompanied by:

1. Product specification sheets or other documentation that includes the designed parameters as detailed in the specification. The parameters include:
 - 1.1. Maximum power in watts
 - 1.2. Maximum designed junction temperature for the specific luminaire model
 - 1.3. L70 in hours when extrapolated for the average nighttime operating temperature
2. IES LM-79 and IES LM-80 compliant test reports from a CALiPER-qualified or NVLAP-approved testing laboratory for the specific model submitted.
3. Photometric file (IES) based on LM-79 test report.
4. Initial and End-of-Life lighting simulations showing lighting levels on the roadway for east bound and west bound directions.
5. Test report showing surge protection device (SPD) performance as tested under ANSI/IEEE C62.41.2 and ANSI/IEEE C62.45.
6. Test report showing mechanical vibration test results as tested under a modified California Test 611 as described below.
7. Datasheets from the LED manufacturer that includes information on life expectancy based on junction temperature.
8. Datasheets from power supply manufacturer that includes life expectancy information.

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Quality Control and Assurance

The luminaires must be manufactured under the manufacturer's quality assurance program. The program must include (1) production quality assurance and (2) design quality assurance.

Production quality assurance must include statistically-controlled routine tests to ensure minimum performance levels of the modules built to meet this specification and a documented process for resolving problems. The process and test results documentation must be kept on file for a minimum of 7 years.

Design quality assurance must be performed by the manufacturer or an independent testing lab hired by the manufacturer on new luminaire. The sample luminaires must be energized for a minimum of 24 hours, at 100 percent on-time duty cycle, at a temperature of +70 °F before performing any design qualification testing.

One initial test unit shall be fitted with temperature sensors (either thermistor or thermo-couple). Temperature sensors shall be mounted on the LED solder pads as close to the LED as possible. One temperature sensor shall be mounted on the power supply (driver) case. Light bar or modular systems shall have one sensor for each module, mounted as close to the center of the module. Other configurations shall have at least 5 sensors per luminaire. Contact Caltrans for advice on sensor location. Thermocouples will be either Type K or Type C. Thermistors shall be negative temperature coefficient (NTC) type with a nominal resistance of 20k ohm. The appropriate thermocouple wire shall be used. The leads shall be a minimum of 6 ft. Documentation shall accompany the test unit that details the type of sensor used.

Any failure of the luminaire that renders the unit non-compliant with the specification after burn in must be rejected.

The luminaire must be tested under California Test No. 678 and as specified. Luminaire performance must be judged against the specified minimum illuminance in the specified pattern for a particular application. The luminaire lighting performance must be adjusted, depreciated, for the minimum operating life. The performance must be adjusted, depreciated, by using the LED manufacturer's data or the data from the LM-80 test report, whichever results in a higher level of lumen depreciation.

The Department may perform random sample testing on all shipments. Testing will be completed within 30 days after delivery to the Transportation Laboratory. Luminaires will be tested under California Test No. 678 and as specified. All parameters of the specification may be tested on the shipment sample.

Materials

General

The luminaire consists of an assembly that uses LEDs as the light source. In addition, a complete luminaire consists of a housing, an LED array, an electronic driver (power supply), and all associated electronics components. The luminaire must comply with the following requirements:

1. UL listed under UL 1598 for luminaires or an equivalent standard from a recognized testing laboratory
2. Have a minimum operational life is 63,000 hours, unless otherwise noted
3. Expected to operate at an average operating time of 11.5 hours per night
4. Designed to operate at an average nighttime operating temperature of 15 °C (60 °F)
5. Have an operating temperature range from -25 °C – 55 °C (-13 °F to +130 °F).

The individual LEDs must be connected such that a catastrophic loss or a failure of 1 LED will not result in the loss of the entire luminaire.

Luminaire Identification

Each luminaire must have the following identification permanently marked inside the unit and outside of its packaging box:

1. Manufacturer's name
2. Trademark
3. Model number
4. Serial number
5. Date of manufacture (month-year)

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6. Lot number

The rated voltage and rated power (in watts) must be permanently marked inside each unit.

Photometric Requirements

Photometric performance shall depend on the application of the luminaire. See the application for these requirements.

The luminaire must have a correlated color temperature in the range of 4,000K to 4,500K

The color rendition index must be 70 or greater.

Thermal Management

The thermal management of the heat generated by the LEDs must be of sufficient capacity to assure proper operation of the luminaire over the minimum operation life. The LED manufacturer's maximum junction temperature for the minimum operation life must not be exceeded. The maximum allowed junction temperature is 90 °C.

The junction-to-ambient thermal resistance must be 35 °C per watt or less. Thermal management must be passive by design. The use of fans or other mechanical devices is not allowed. The heat sink material must be aluminum or other material of equal or lower thermal resistance.

Physical and Mechanical Requirements

The housing must be fabricated from materials that are designed to withstand a 3000-hour salt spray test under ASTM B 117. All aluminum used in housings and brackets shall be a marine grade alloy with less than 0.2% copper. All aluminum shall be anodized.

Each refractor or TIR lens must be made from UV-inhibited high impact plastic (such as acrylic or polycarbonate) or heat and impact resistant glass, and be resistant to scratching.

Paint or powder coating of the housing must comply with Section 86, "Electrical Systems," of the Standard Specifications. A chromate conversion undercoating shall be used underneath a thermoplastic polyester powder coat.

The luminaire must be a single, self-contained device, not requiring on-site assembly for installation.

The assembly and manufacturing process for the LED luminaire must be designed to assure all internal components are adequately supported to withstand mechanical shock and vibration from high winds and other sources. The luminaires and mounting device, when tested under a modified California Test 611, must be capable of withstanding the following cyclic loadings in units of acceleration of gravity, G:

1. Vertical plane (z axis) at a minimum peak acceleration level of 3.0 G peak-to-peak sinusoidal loading (same as 1.5 G peak), for a minimum of 2 million cycles without failure of any luminaire parts
2. Horizontal plane (x axis) at a minimum peak acceleration level of 1.5 G peak-to-peak sinusoidal loading (same as 0.75 G peak), for a minimum of 2 million cycles without failure of any luminaire parts
3. Horizontal plane (y axis) at a minimum peak acceleration level of 1.5 G peak-to-peak sinusoidal loading (same as 0.75 G peak), for a minimum of 2 million cycles without failure of any luminaire parts

The housing must be designed to prevent the build up of water on the top of the housing. Exposed heat sink fins must be oriented to allow the water to freely run off the luminaire and carry dust and other accumulated debris away from the unit.

The optical assembly of the luminaire must be protected against dust and moisture intrusion per the minimum requirements of IP-66.

The electronics/power supply enclosure must be protected per the minimum requirements of IP-55.

Field wires connected to the luminaire must terminate on a barrier type terminal block secured to the housing. The terminal screws must be captive and equipped with wire grips for conductors up to No. 6. Each terminal position must be clearly identified. Weather-tight connectors, approved by the Engineer, may be used.

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Power Supply Electrical

The power supply shall be able to operate on a standard 60 Hz ± 3 Hz AC line with a nominal voltage of 480 VAC between ungrounded conductors.

The power factor shall be 0.90 or greater,

Total harmonic distortion (current and voltage) induced into an AC power line must not exceed 20 percent.

The power supply shall be rated for outdoor operation. The power supply shall have a minimum IP rating of IP65.

The power supply shall be rated for a minimum operational life equal to the minimum operation life of the luminaire, or greater.

The power supply case temperature must have a self rise of 25° C or less above ambient temperature in free air with no additional heat sinks.

The power supply must support remote location of up to 100 feet distance from the luminaire. The power supply manufacturer will supply information on recommended wire sizes to achieve the remote location.

The 480V drive (power supply) must support industry standard 0 to 10 V DC control.

Surge Suppression and Electromagnetic Interference

The luminaire must include a surge suppression device to withstand high repetition noise transients as a result of utility line switching, nearby lightning strikes, and other interference. The surge suppression device must protect the luminaire from damage and failure for transient voltages and currents as defined in ANSI/IEEE C64.41.2 (Tables 1 and 4) for Location Category C-High. The surge suppression device must conform to UL 1449 or UL 1283, depending of the components used in the design. Surge suppression device performance must be tested under ANSI/IEEE C62.41.45 based on ANSI/IEEE C62.41.2 definitions for standard and optional waveforms for Location Category C-High. The surge suppression device may be external to the power supply. For remotely located power supplies, the surge suppression device shall be located adjacent to the power supply.

The luminaires and associated on-board circuitry must meet EN61000-4-6 or Class A emission limits under FCC Title 47, Subpart B, Section 15 regulations concerning the emission of electronic noise.

Compatibility

The luminaire must be operationally compatible with currently used lighting control systems and photoelectric controls.

Roadway Luminaires Types MSR

Pole and cable mounted roadway luminaires shall be light emitting diode (LED) floodlights with a mounting suitable for the location shown on the plans.

The face of the fixture shall be circular in shape, similar to the conceptual design plans. A prototype luminaire shall be submitted for architectural approval prior to delivery.

Each roadway and suspender cable luminaire shall be equipped with a fully adjustable aiming device necessary to achieve the specified light levels and uniformities. Aiming device shall be as shown on the plans or equal, allowing for at least 3 axis of movement (± 90 degrees) for aiming. Mounting devices shall be approved by the engineer.

The mounting device shall have easily read etched or stamped angle markings at the pivot points.

Mounting device and hardware shall be Type 316 stainless steel, or of other material of sufficient strength and corrosion resistance

Luminaire, mounting device and hardware shall be powder coated with a white finish as selected by the architect.

Luminaires shall be fully assembled, and ready for installation.

Electrical/Photometric Requirements

Roadway Luminaires shall come in no more than two wattages (max wattages: 300 w and 200 w) and no more than three beam configurations for a total of six different roadway luminaires (similar to original metal halide plans), unless needed and approved by engineer to meet the photometric requirements listed below, a table of roadway luminaire types is provided with the original metal halide information. As part of the product submittal, the supplier shall complete the table with the required information for the LED luminaires.

Photometric requirements are that the roadway luminaires maintain an average of 1.5 foot-candles for the

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minimum operational life of the luminaires. Uniformity shall be limited by a MAX to MIN ratio of 10 to 1, and an AVE to MIN ratio of 3 to 1. A table of roadway luminaire installations is provided with original metal halide details. The supplier shall complete the table with the required information for the LED luminaire installations and final aiming coordinates. The supplier shall specify the type and quantity of LED luminaires to achieve the required photometric performance.

Supplier shall provide computer generated point by point lighting calculations showing that luminaire types and quantities will meet the required performance at installation and throughout minimum operational life.

For pole mounted luminaires, the driver and all associated electronics shall be located in the base of the pole.

For cable mounted luminaires, the power supply shall be located in a box on the cable clamp/platform.

Roadway Luminaires (YSR, MSR, SSR, OSR))

Luminaire Type	Original Metal Halide					LED Luminaire		
	Wattage*	Beam Angle	Field Angle	NEMA	Quantity	Wattage	Beam Designation	Quantity
xSR-2	400	5 x 5	15 x 15	1h x 1v	192			
xSR-2a	400	35 x 6	50 x 12	4h x 1v	4			
xSR-2b	400	50 x 50	95 x 95	5h x 5v	238			
xSR-3	250	5 x 5	15 x 15	1h x 1v	153			
xSR-3a	250	35 x 6	50 x 12	4h x 1v	84			

Pole Mounted Marker Lights Type MAM

Pole mounted marker light fixture shall be a 200 mm diameter (approx) lantern using LEDs as the light source. Each fixture shall be shipped fully assembled, furnished with lamps, power supply, transformer, and base and fixture caps, and shall comply with the following requirements.

The fixture shall be cylindrical in shape, similar to the conceptual design plans. A prototype luminaire shall be submitted for architectural approval prior to delivery.

Each fixture shall have a maximum power consumption of 125 watts.

The fixture shall be IP-66 rated and be constructed of materials and coatings to allow it to pass a 3,000 hour salt spray test per ASTM B 117.

The driver shall be IP-65 rated and remote mounted at the base of the pole with the roadway lighting drivers. The manufacturer shall supply a wire harness to connect the driver at the bottom of the pole to the fixture at the top of the pole.

The fixture, driver, and wire harness shall have quick-connect electrical connections. The harness shall be encased in a corrugated plastic tubing to protect the wires from abrasion from the inside of the pole.

Housing Material

Housing shall consist of anodized aluminum base plate with an anodized aluminum mounting cylinder and a removable anodized aluminum cape secured to the fixture with a threaded cap anchor. Aluminum shall be a marine grade alloy with less than 0.2% copper.

Fixtures shall be equipped with a cast mounting base, suitable for surface mounting to the Roadway Lighting Pole top. Mounting hardware shall be Type 316 stainless steel.

Fixtures shall be UL listed for use in wet locations.

Photometric Requirements

The fixture shall provide a minimum intensity of 500 candelas at any point on the horizontal plane and have a minimum beam angle of 60 degrees (between the angles of 30 degrees above and below the horizon) for a minimum operational life of 50,000 hours.

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Marker Lights (YAM, MAM, SAM, OAM, MAP)

Luminaire Type	Original Metal Halide					LED Luminaire		
	Wattage*	Beam Angle	Field Angle	NEMA	Quantity	Wattage	Beam Designation	Quantity
xAM-3	250				80			
xAM-4	175				28			
xAM-5	100				43			
xAM-6	60				21			
MAP	400				2			

Belvedere Lights Type MSV

Belvedere light fixtures shall be light emitting diode (LED) fixtures with a mounting suitable for the location shown on the plans.

Luminaire, mounting device and hardware shall be powder coated with a white finish as selected by the architect.

Fixtures shall be equipped with a fully adjustable mounting method to achieve the necessary horizontal and vertical aiming angles (mounting device). Fixture and power supply shall be suitable for surface and pole mounted applications.

Mounting device and hardware shall be Type 316 stainless steel, or of other material of sufficient strength and corrosion resistance.

Electrical/Photometric Requirements

Belvedere luminaires shall consume no more than 35 watts including power supply. A table of luminaire types is provided with the original metal halide information. The supplier shall complete the table with the required information for the LED luminaires.

The maintained footcandle for Belvedere area to be 3.0, over the minimum operational life. The beam spread shall be equivalent to NEMA 3H x 3V pattern or whatever deemed necessary to provide adequate coverage on the area and approved by the engineer.

The power supply shall be remotely located from the luminaire in the box on the belvedere poles as shown on the plans.

Belvedere Luminaires (MSV)

Luminaire Type	Original Metal Halide					LED Luminaire		
	Wattage*	Beam Angle	Field angle	NEMA	Quantity	Wattage	Beam Designation	Quantity
MSV	35	30 x 30		3h x 3v				

Suspender Uplight Luminaires Type MAU And Cable Mounted Suspender Downlight Luminaires Type MAD-C

Suspender uplight luminaires and cable mounted suspender downlight luminaires (suspender luminaires) shall be light emitting diode (LED) fixtures with a mounting suitable for the location shown on the plans.

The shape of the luminaire shall be as shown on the plans. A prototype luminaire shall be submitted for architectural approval prior to delivery.

Each roadway and suspender cable luminaire shall be equipped with a fully adjustable aiming device necessary to achieve the specified light levels and uniformities. Aiming device shall be as shown on the plans or equal, allowing for at least 3 axis of movement (+/- 90 degrees) for aiming. Mounting devices shall be approved by the engineer.

The mounting device shall have easily read etched or stamped angle markings at the pivot points.

Mounting device and hardware shall be Type 316 stainless steel, or of other material of sufficient strength and corrosion resistance.

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Luminaire, mounting device and hardware shall be powder coated with a white finish as selected by the architect.

Luminaires shall be fully assembled, and ready for installation.

Electrical/Photometric Requirements

Suspender luminaires shall come in no more than 4 wattages and only one beam configuration for a maximum of five different suspender luminaires (similar to original metal halide plans), unless needed and approved by engineer to meet the photometric requirements listed below. A table of suspender luminaire types is provided with the original metal halide information. The supplier shall complete the table with the required information for the LED luminaires.

Photometric requirements are that the suspender luminaires have a narrow beam

Supplier shall provide simulations showing that luminaire types and quantities will meet the required performance at installation and throughout the minimum operational life.

For all suspender luminaires, the power supply shall be located in a box on the cable clamp/platform (for cable mounted) or in a box on the suspender cable attachment. See plans for more details.

Main Tower Floodlights Types MAR And MAT

Main tower floodlight fixtures shall be surface, wall or tenon mounted, rectangular shaped, LED floodlight fixtures with mounting brackets, mounting suitable for locations shown on the plans. Fixtures shall be fully assembled, one piece cast aluminum, suitable for marine use, furnished with LED, power supply, and optics.

A prototype luminaire shall be submitted for architectural approval prior to delivery.

Housings shall be one-piece cast aluminum with integrally cast heat dissipating fins.

Luminaire, mounting device and hardware shall be powder coated with a white finish as selected by the architect.

The power supply shall be integral with the lighting fixture, internally mounted in a corrosion resistant cast aluminum finned box with a weather-resistant E.D.P.M. gasket.

Each luminaire shall be equipped with a fully adjustable mounting yoke and adjustable pivot bracket aiming system (mounting device). Mounting device shall be as shown on the plans or equal, allowing for at least 3 axis of movement (+/- 90 degrees) for aiming. Mounting devices shall be approved by the engineer.

The mounting device shall have easily read etched or stamped angle markings at the pivot points.

Mounting device and hardware shall be Type 316 stainless steel, or of other material of sufficient strength and corrosion resistance.

Electrical/Photometric Requirements

Tower floodlight luminaires shall come in no more than four wattages and four beam configurations for a maximum of six different main tower floodlights (similar to original metal halide plans), unless needed and approved by engineer to meet the photometric requirements listed below. A table of main tower floodlight types is provided with the original metal halide information. The supplier shall complete the table with the required information for the LED luminaires.

Main Tower Marker Lights Type MAP

Main tower marker light fixture shall be a 300 mm diameter (approx) lantern using LEDs as the light source. Each fixture shall be shipped fully assembled, furnished with lamps, power supply, transformer, and base and fixture caps, and shall comply with the following requirements.

Each fixture shall have a maximum power consumption of 200 watts.

The fixture shall be IP-66 rated and be constructed of materials and coatings to allow it to pass a 3,000 hour salt spray test per ASTM B 117.

The driver shall be IP-65 rated and remote mounted in a NEMA 4R enclosure mounted on the main tower at a location determined by the Engineer. The manufacturer shall supply a wire harness to connect the driver in the enclosure to the fixture at the top of the tower.

The fixture, driver, and wire harness shall have quick-connect electrical connections. The harness shall be encased in a corrugated plastic tubing to protect the wires from abrasion from the inside of the pole.

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Housing Material

Housing shall consist of anodized aluminum base plate with an anodized aluminum mounting cylinder and a removable anodized aluminum cape secured to the fixture with a threaded cap anchor. Aluminum shall be a marine grade alloy with less than 0.2% copper.

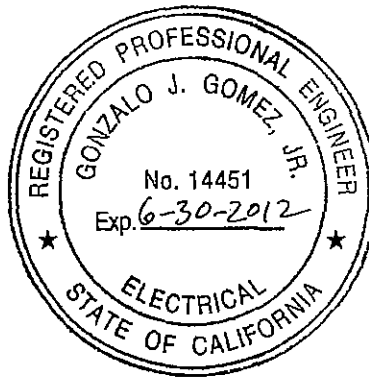
Fixtures shall be equipped with a cast mounting base, suitable for surface mounting to the Roadway Lighting Pole top. Mounting hardware shall be Type 316 stainless steel.

Fixtures shall be UL listed for use in wet locations.

Photometric Requirements

The fixture shall provide a minimum intensity of 1,000 candelas at any point on the horizontal plane and have a minimum beam angle of 60 degrees (between the angles of 30 degrees above and below the horizon) for a minimum operational life of 50,000 hours.

Gonzalo J. Gomez, Jr.
1-24-2011



CONTRACT CHANGE ORDER MEMORANDUM

DATE: 1/26/2011 Page 1 of 2

TO: Pete Siegenthaler, Prin TE /			FILE: E.A. 04 - 0120F4	
FROM: Kannu Balan, Senior TE			CO-RTE-PM SF-80-13.2/13.9	
FED. NO.				
CCO#: 167	SUPPLEMENT#: 0	Category Code: CBSA	CONTINGENCY BALANCE (incl. this change) \$175,283,263.81	
COST: \$1,556,614.00 INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: Replace Metal Halide Lights with LEDs			PROJECT DESCRIPTION: CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE	
Original Contract Time: 2490 Day(s)	Time Adj. This Change: 0 Day(s)	Previously Approved CCO Time Adjustments: 501 Day(s)	Percentage Time Adjusted: (including this change) 20 %	Total # of Unreconciled Deferred Time CCO(s): (including this change) 3

THIS CHANGE ORDER PROVIDES FOR:

Furnishing LED light fixtures in lieu of the metal halide lighting system required by the Contract.

Revising Special Provisions Sections 10-3.14 "LIGHTING."

As per Executive Order S-12-04 by the Governor and per the Director's Policy DP-23, State agencies shall pursue energy conservation measures where it can be achieved in a cost effective manner. The Department explored alternative lighting fixtures other than the metal halide fixtures as originally designed for this project. The Design Team on August 31, 2010, decided to use LED fixtures instead of metal halide fixtures in this project to save energy, maintenance cost and to be consistent with other bay area bridges such as Richmond-San Rafael, Carquinez, and San Mateo, which have LED fixtures. In addition, the lowering devices were eliminated in the new design of the light poles due to the complexity of the mechanism and potential jamming. Since the revised design of the light poles doesn't have the lowering devices, it is more difficult for re-lamping access by Maintenance. LED fixtures are expected to last 50,000 to 63,000 hours versus 15,000 hours for metal halide, therefore resulting in significant cost savings. Using LED's will result in an estimated 30% energy reduction based on 2 years of LED fixture testing on State-owned bridges and intersections. Maintenance is in favor of LED fixtures in lieu of metal halide to reduce the frequency they will need to service the lights. Additionally this CCO will have a 10-year maintenance warranty from the LED fixture supplier.

This change order will be presented to the Toll Bridge Program Oversight Committee (TBPOC) in February 2011 for their approval

The total cost of this change order is \$1,556,614.00, which can be financed from the contingency fund. A detailed cost analysis is on file.

No time adjustment is warranted as this change order does not affect the controlling operation.

This change order has concurrence from Peter Siegenthaler (Principal TE), Ken Terpstra (Proj. Manager), Rick Morrow (Structure Rep.), Rich Foley (HQ Oversight), Wenyi Long (Design Oversight), and Lina Ellis (Maintenance).

The Resident Engineer requests Headquarters CCO Desk "Issue and Approve".

CONTRACT CHANGE ORDER MEMORANDUM

EA: 0120F4 CCO: 167 - 0

DATE: 1/26/2011

Page 2 of 2

CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer:	PCE, Pete Siegenthaler, Prin TE	Date 11/29/10	THIS REQUEST		TOTAL TO DATE
Bridge Engineer:	Struct Rep, Rick Morrow, Sup TE	Date 11/29/10	ITEMS	\$0.00	\$0.00
Project Engineer:	CT Oversight, Wenyi Long, P.E.	Date 12/2/10	FORCE ACCOUNT	\$100,000.00	\$100,000.00
Project Manager:	Proj Manager, Ken Terpstra	Date 11/30/10	AGREED PRICE	\$1,456,614.00	\$1,456,614.00
FHWA Rep.:		Date	ADJUSTMENT	\$0.00	\$0.00
Environmental:		Date	TOTAL	\$1,556,614.00	\$1,556,614.00
Other (specify):	HQ, Rich Foley	Date 11/29/10	FEDERAL PARTICIPATION		
Other (specify):	Struct. Maint, Lina Ellis	Date 12/1/10	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING		
District Prior Approval By:		Date	FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)		
HQ (Issue Approve) By:		Date	<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS		
Resident Engineer's Signature:		Date	FEDERAL FUNDING SOURCE PERCENT _____ _____ _____		

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Andrew Fremier, Deputy Executive Director, Operations, MTC/BATA

RE: Agenda No. - 3a
Progress Reports
Item- 2012 Fourth Quarter Project Progress and Financial Update

Recommendation:

APPROVAL

Cost:

N/A

Schedule Impacts:

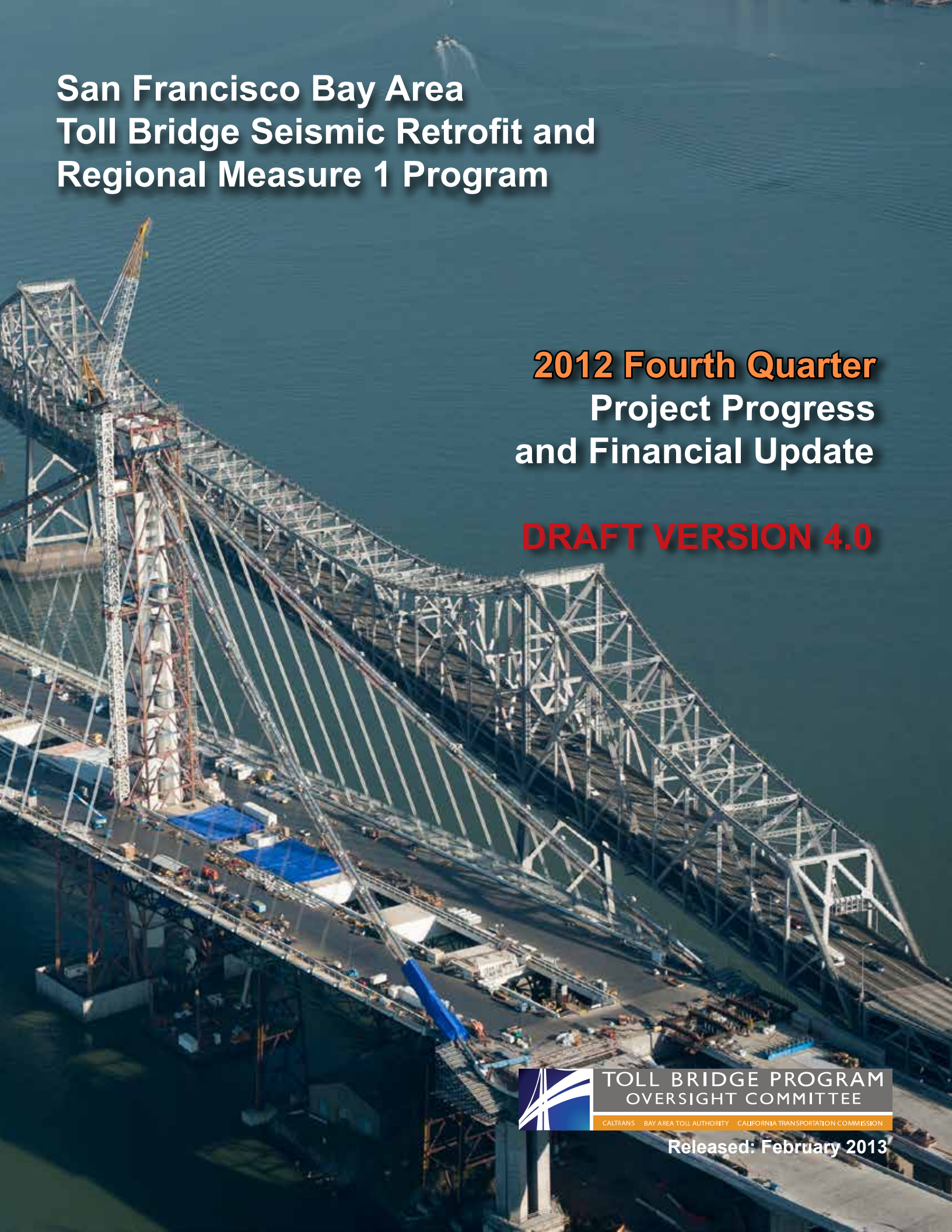
N/A

Discussion:

Included in this package, for TBPOC approval, is the 2012 Fourth Quarter Project Progress and Financial Update. The report is complete pending further review/edits.

Attachment(s):

2012 Fourth Quarter Project Progress and Financial Update (see end of binder)



San Francisco Bay Area Toll Bridge Seismic Retrofit and Regional Measure 1 Program

2012 Fourth Quarter
Project Progress
and Financial Update

DRAFT VERSION 4.0



**TOLL BRIDGE PROGRAM
OVERSIGHT COMMITTEE**

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

Released: February 2013



View from the Tower of the New San Francisco-Oakland Bay Bridge Self-Anchored Suspension Bridge with the Newly Installed Light Fixtures Looking West at Yerba Buena Island Transition Structures





Toll Bridge Program Oversight Committee
Department of Transportation
Office of the Director
1120 N Street
P.O. Box 942873
Sacramento, CA 94273-0001

February 6, 2013

Mr. Gregory Schmidt
Secretary of the Senate
State Capitol, Room 3044
Sacramento, CA 95814

Mr. E. Dotson Wilson
Chief Clerk of the Assembly
State Capitol, Room 3196
Sacramento, CA 95814

Dear Messrs. Schmidt and Wilson:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the 2012 Fourth Quarter Project Progress and Financial Update for the San Francisco Bay Area Toll Bridge Seismic Retrofit and Regional Measure 1 Programs (TBSRP), prepared pursuant to California Streets and Highways Code Section 30952.

The TBPOC is tasked to perform project oversight and control over the Toll Bridge Seismic Retrofit Program (TBSRP) and comprises the Director of the California Department of Transportation (Caltrans), the Executive Director of the Bay Area Toll Authority (BATA), and the Executive Director of the California Transportation Commission (CTC). This fourth quarter report includes project progress and activities for the Toll Bridge Seismic Retrofit Program through December 31, 2012, with more recent accomplishments and actions addressed in this letter.

On the new eastern span of the San Francisco-Oakland Bay Bridge, the contractor has completed the load transfer process of lifting the load of the roadway deck off its temporary supports and onto the main cable. Critical path activities remaining prior to opening the new bridge to traffic include wrapping of the main cable, painting, paving, striping, and installing and testing of mechanical, electrical, and plumbing systems. Work is also proceeding on schedule on the Yerba Buena Island and Oakland sides of the new bridge. The project remains on schedule for a Labor Day 2013 Seismic Safety Opening.

With regard to other seismic retrofit projects, the TBPOC is pleased to report that the Dumbarton Bridge was successfully seismically retrofitted ahead of schedule on January 4, 2013. The retrofit added new bridge joints, additional structural steel and new seismic isolation bearings to help the bridge withstand large earthquakes.

As of the end of the fourth quarter of 2012, the 50 percent probable draw on program contingency is \$122 million. The potential draw ranges from about \$50 million to \$175 million. The current \$329 million program contingency balance can be used to cover the costs of these identified risks. In accordance with the approved TBSRP Risk Management Plan, risk mitigation actions are continuously developed and implemented to reduce the potential draw on the program contingency.

The TBPOC is committed to providing the Legislature with comprehensive and timely reporting on the TBSRP. If there are any questions, or if any additional information is required, please do not hesitate to contact the members of the TBPOC.

Sincerely,

STEVE HEMINGER
TBPOC Chair
Executive Director
Bay Area Toll Authority

BIMLA G. RHINEHART
TBPOC Vice-Chair
Executive Director
California Transportation Commission

MALCOLM DOUGHERTY
Director
California Department of Transportation



Toll Bridge Program Oversight Committee
Department of Transportation
Office of the Director
1120 N Street
P.O. Box 942873
Sacramento, CA 94273-0001

February 6, 2013

Mr. James C. Ghielmetti, Chair
California Transportation Commission
1120 N Street, Room 2221
Sacramento, CA 95814

Mr. Carl Guardino, Vice-Chair
California Transportation Commission
1120 N Street, Room 2221
Sacramento, CA 95814

Dear Messrs. Ghielmetti and Guardino:

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TBPOC Chair
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Bay Area Toll Authority

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TBPOC Vice-Chair
Executive Director
California Transportation Commission

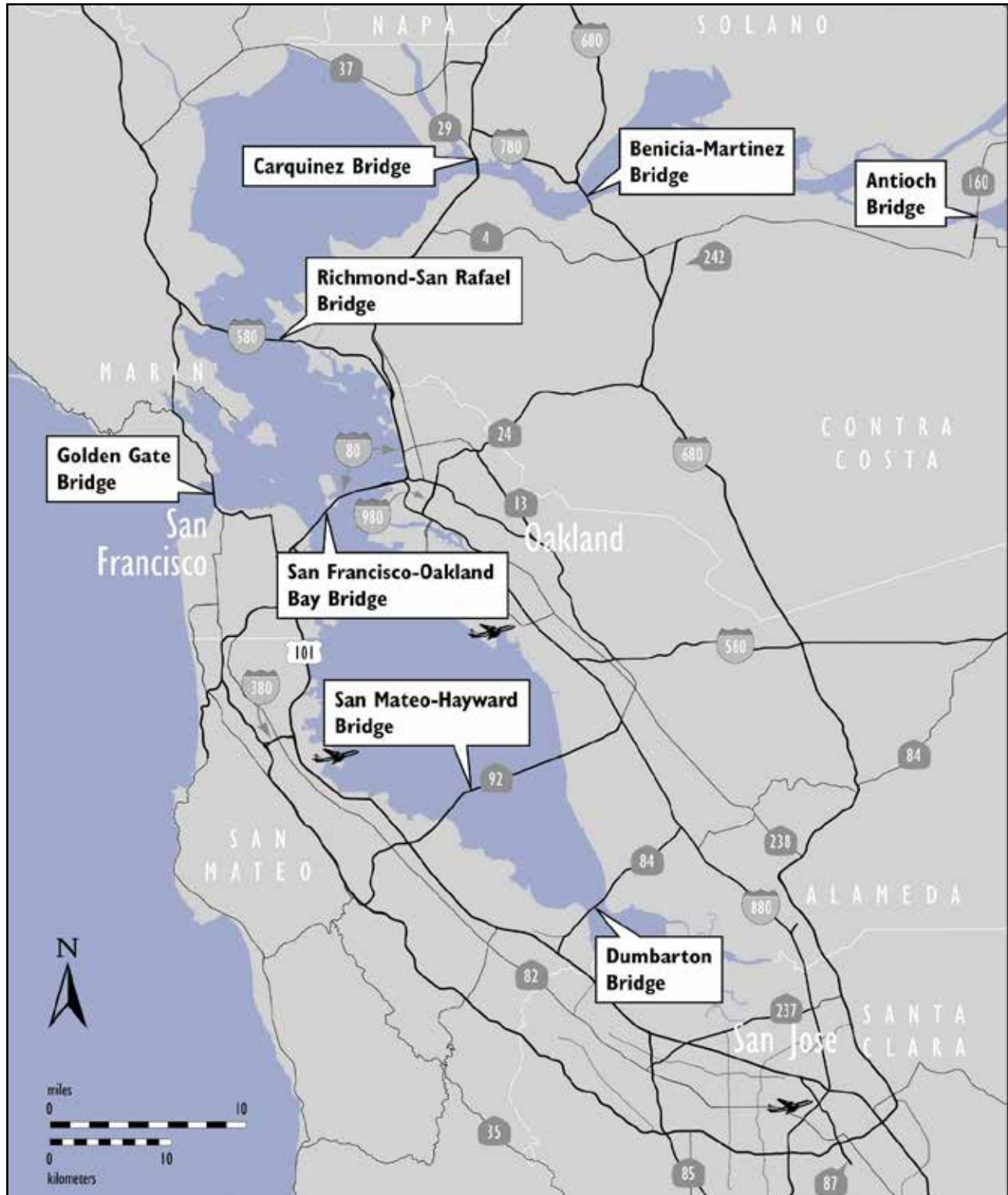
MALCOLM DOUGHERTY
Director
California Department of Transportation



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Map of Bay Area Toll Bridges



* The Golden Gate Bridge is owned and operated by the Golden Gate Bridge, Highway and Transportation District.

Introduction

In July 2005, Assembly Bill (AB) 144 (Hancock) created the Toll Bridge Program Oversight Committee (TBPOC) to implement a project oversight and project control process for the new Benicia-Martinez Bridge and State Toll Bridge Seismic Retrofit Program (TBSRP) projects. The TBPOC consists of the Director of the California Department of Transportation (Caltrans), the Executive Director of the Bay Area Toll Authority (BATA) and the Executive Director of the California Transportation Commission (CTC). The TBPOC's project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the Committee), and keeping the Legislature and others apprised of current project progress and status. In January 2010, Assembly Bill (AB) 1175 (Torlakson) amended the TBSRP to include the Antioch and Dumbarton Bridges seismic retrofit projects. The current TBSRP is as follows:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
Dumbarton Bridge Seismic Retrofit	Construction
Antioch Bridge Seismic Retrofit	Complete
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Complete
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
1958 Carquinez Bridge Seismic Retrofit	Complete
1962 Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The New Benicia-Martinez Bridge is part of a larger program of toll-funded projects called the Regional Measure 1 (RM1) Toll Bridge Program under the responsibility of BATA and Caltrans. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans will continue to report on their progress as an informational item. The RM1 program includes:

Regional Measure 1 Projects	Open to Traffic Status
Interstate 880/State Route 92 Interchange Reconstruction	Open
1962 Benicia-Martinez Bridge Reconstruction	Open
New Benicia-Martinez Bridge	Open
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



The San Francisco-Oakland Bay Bridge Self-Anchored Suspension Bridge Main Cable Wrapping Operations



Yerba Buena Island Transition Structure Westbound Roadway Lighting Foundation Formwork and conduit Installation



Self-Anchored Suspension Bridge Lighting Fixtures Installed on the Main Suspension Cable Back Span

Toll Bridge Seismic Retrofit Program Risk Management

A major element of the 2005 AB 144, the law creating the TBPOC, was legislative direction to implement a more aggressive risk management program. Such a program has been implemented in stages over time to ensure development of a robust and comprehensive approach to risk management.

A comprehensive risk assessment is performed for each project in the program on a quarterly basis. Based upon those assessments, a forecast is developed using the average cost of risk. These forecasts can both increase and decrease as risks are identified, resolved or retired. Nonetheless, assurances have been made that the public is informed of the risks that have been identified and the possible expense they could necessitate.

The program contingency is currently \$329 million in accordance with the TBPOC approved budget. As of the end of the fourth quarter of 2012, the 50 percent probable draw on program contingency is \$122 million. The potential draw ranges from about \$50 million to \$175 million (see page 36).

The current program contingency balance is sufficient to cover the cost of currently identified risks. In accordance with the approved TBSRP Risk Management Plan, risk mitigation actions are continuously developed and implemented to reduce the potential draw on the program contingency.

San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Replacement Project Self-Anchored Suspension (SAS) Bridge Superstructures Contract

A joint venture of American Bridge/Fluor (ABF) is constructing the signature Self-Anchored Suspension (SAS) section of the new east span of the San Francisco-Oakland Bay Bridge. The SAS is a self-anchoring suspension span with one main cable that anchors to the eastern end of the roadway deck, rather than to the ground anchorages. Now with all major bridge components in place, i.e. the tower, roadway deck, and main cable and suspenders, work is now to transfer the weight of the span from the temporary supports to the main cable, a complex time- and labor-intensive process known as load transfer.

Two hundred steel wire suspender ropes, attached to 100 cable bands along the single main cable, did the heavy lifting during load transfer. Sets of suspender ropes were gradually tensioned using hydraulic jacks; as each cable band carries two ropes, there are four hydraulic jacks (each exerting as much as 400 tons of force) at each corresponding location along the outside of the road-decks tensioning and pulling the ropes into position. Following load transfer, remaining critical activities include wrapping of the main cable, painting, paving, striping, and installing and testing of the bridge's mechanical, electrical, and plumbing systems. The TBPOC's goal is to open the bridge to traffic in both directions by September 2013.



YBITS Structure Eastbound On-Ramp Columns

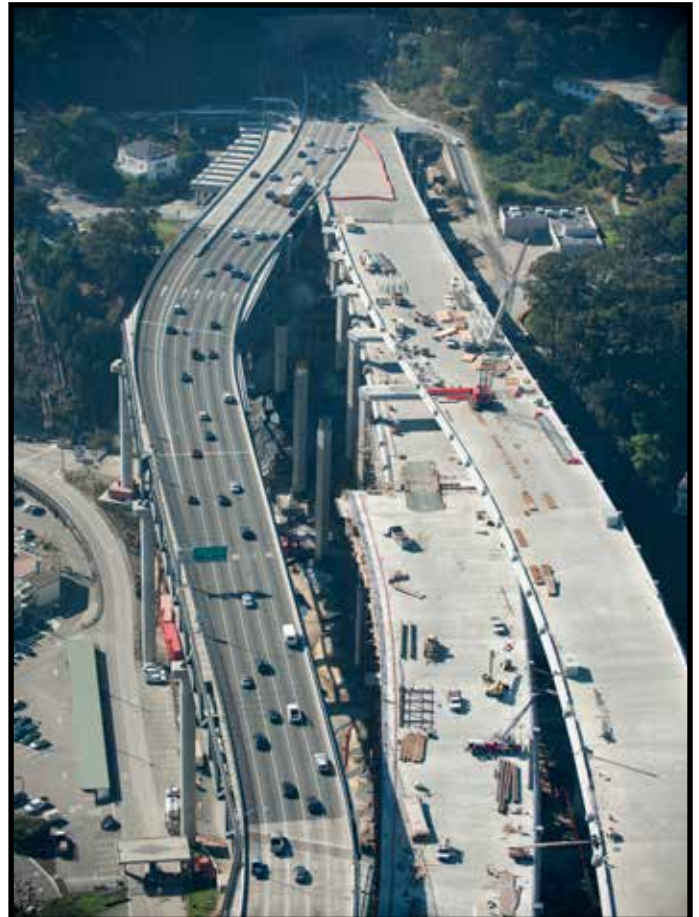
Yerba Buena Island Transition Structure (YBITS) #1 Contract

MCM Construction, Inc. is the prime contractor constructing the Yerba Buena Island Transition Structure #1 (YBITS #1) contract. Their work includes completing the remaining foundations and the bridge deck structure from the existing double deck Yerba Buena Island Tunnel to the SAS bridge.

MCM has substantially completed both the eastbound and westbound transition structures from the tunnel to the Hinge K area and transferred the remaining hinge area over to the SAS contractor on September 2, 2012.

Yerba Buena Island Transition Structure (YBITS) #2 and Cantilever Demolition Contract

The YBITS #2 contract will demolish the detour viaduct after all traffic is shifted to the new bridge and will construct a new eastbound on-ramp to the bridge in its place. **The contract also includes the cantilever truss demolition, eastbound on ramp and bike path construction. The contract was awarded to California Engineering Contractors Inc/Silverado Contractors Inc. Joint Venture on November 28, 2012. Initial startup activities are planned to begin in March 2013 with actual dismantling to start in September 2013, after the new Bay Bridge opening.**



Ariel View of the San Francisco-Oakland Bay Bridge YBITS on the right and the Yerba Buena Island Detour on the left

SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



Oakland Touchdown #2 Eastbound Stemwall Formwork

Oakland Touchdown #2 Contract

Flatiron West, Inc. is the prime contractor constructing the Oakland Touchdown #2 contract that will complete the remaining portions of the Oakland Touchdown approach structures from the existing toll plaza to the new span. The westbound structure and portions of the eastbound structure (not in conflict with the existing span) were constructed under the Oakland Touchdown #1 contract. The OTD #2 construction contract started on June 25, 2012. The mainline structure work is scheduled to be completed in the first quarter of 2013 for bridge opening. After bridge opening, the contractor will complete landscaping of the area and constructing the remaining portion of the permanent bicycle/pedestrian pathway by 2014 that is in conflict with the existing bridge.



Existing San Francisco-Oakland Bay Bridge Cantilever Section to be Dismantled as Part of the YBITS #2 Contract

Existing SFOBB Dismantling Contracts

To expedite the opening of a new eastbound on-ramp and the pedestrian/bicycle pathway from Yerba Buena Island, the TBPOC has decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge has been incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contract(s) still in design.



Existing San Francisco-Oakland Bay Bridge Segment to Be Dismantled in Future Contract(s)

Antioch Bridge Seismic Retrofit

The major retrofit strategy for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents, and installing steel casings at all columns located at the Sherman Island approach slab bridge. Seismic safety opening was achieved on April 12, 2012 and contract was completed on July 13, 2012.

Dumbarton Bridge Seismic Retrofit

The Dumbarton Bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast pre-stressed concrete girders and steel box girders supported on reinforced concrete piers. The retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings. The Dumbarton Bridge was closed to traffic for the second time in 2012 during Labor Day weekend. A full bridge closure was necessary in order for crews to replace the existing expansion joint on the eastern side of the bridge at Pier 31 with a state-of-the-art seismic joint.



Antioch Bridge

Toll Bridge Seismic Retrofit Program Cost Summary (Millions)

	Contract Status	AB 144/SB 66 Budget (September 2005)	TBPOC Approved Changes	Current TBPOC Approved Budget (December 2012)	Cost to Date (December 2012)	Current Cost Forecast (December 2012)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
SFOBB East Span Seismic Replacement								
Capital Outlay Construction								
Skyway	Completed	1,293.0	(55.8)	1,237.2	1,237.3	1,237.2	-	●
SAS Marine Foundations	Completed	313.5	(38.7)	274.8	274.8	278.6	3.8	●
SAS Superstructure	Construction	1,753.7	293.1	2,046.8	1,749.1	2,050.6	3.8	●
YBI Detour	Completed	131.9	334.2	466.1	466.2	473.3	7.2	●
YBI Transition Structures (YBITS)		299.3	(3.9)	295.4	184.8	322.3	26.9	●
YBITS 1	Construction			199.7	184.8	234.6	34.9	●
YBITS 2 Cantilever and Demo	Awarded			92.4	-	84.4	(8.0)	●
YBITS Landscaping	Design			3.3	-	3.3	-	●
Oakland Touchdown (OTD)		283.8	39.9	323.7	220.4	331.6	7.9	●
OTD 1	Completed			205.0	203.0	203.3	(1.7)	●
OTD 2	Construction			62.0	11.6	65.5	3.5	●
Detour	Completed			51.0	-	48.8	(2.2)	●
OTD Electrical Systems	Design			-	-	4.4	4.4	●
Submerged Electric Cable	Completed			5.7	5.7	9.6	3.9	●
Existing Bridge Demolition	Design	239.2	(0.1)	239.1	-	249.5	10.4	●
*Cantilever Section	Awarded			-	-	57.6		●
*504/288 Sections	Design			-	-	85.3		●
*Marine Foundations	Design			-	-	106.6		●
Stormwater Treatment Measures	Completed	15.0	3.3	18.3	16.8	18.3	-	●
Other Completed Contracts	Completed	90.4	(0.5)	89.9	90.0	90.5	0.6	●
Capital Outlay Support		959.3	262.3	1,221.6	1,105.3	1,278.6	57.0	●
Right-of-Way and Environmental Mitigation		72.4	-	72.4	51.7	80.4	8.0	●
Other Budgeted Capital		35.1	(32.8)	2.3	0.7	7.7	5.4	●
Total SFOBB East Span Replacement		5,486.6	801.0	6,287.6	5,397.1	6,418.6	131.0	
Antioch Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Completed		51.0	51.0	47.0	50.3	(0.7)	●
Capital Outlay Support			31.0	31.0	23.5	23.8	(7.2)	●
Total Antioch Bridge Seismic Retrofit		-	82.0	82.0	70.5	74.1	(7.9)	●
Dumbarton Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Construction		92.7	92.7	59.3	72.0	(20.7)	●
Capital Outlay Support			56.0	56.0	41.1	56.0	-	●
Total Dumbarton Bridge Seismic Retrofit		-	148.7	148.7	100.4	128.0	(20.7)	●
Other Program Projects		2,268.4	(63.6)	2,204.8	2,164.0	2,192.2	(12.6)	
Miscellaneous Program Costs		30.0	-	30.0	25.5	30.0	-	●
Net Programmatic Risks		-	-	-	-	32.6	32.6	●
Program Contingency		900.0	(571.1)	328.9	-	206.5	(122.4)	●
Total Toll Bridge Seismic Retrofit Program²		8,685.0	397.0	9,082.0	7,757.5	9,082.0	-	

Toll Bridge Seismic Retrofit Program Schedule Summary

	AB 144/SB 66 Project Completion Schedule Baseline (July 2005)	TBPOC Approved Changes (Months)	Current TBPOC Approved Completion Schedule (December 2012)	Current Completion Forecast (December 2012)	Schedule Variance (Months)	Schedule Status	Remarks/ Notes
	g	h	i = g + h	j	k = j - i	l	
SFOBB East Span Seismic Replacement							
Contract Completion							
Skyway	Apr 2007	8	Dec 2007	Dec 2007	-	●	See Page 24
SAS Marine Foundations	Jun 2008	(5)	Jan 2008	Jan 2008	-	●	See Page 18
SAS Superstructure	Mar 2012	29	Aug 2014	Aug 2014	-	●	See Page 19
YBI Detour	Jul 2007	39	Oct 2010	Oct 2010	-	●	See Page 15
YBI Transition Structures (YBITS)	Nov 2013	27	Feb 2016	Feb 2016	-	●	See Page 16
YBITS 1			Dec 2013	Dec 2013	-	●	
YBITS 2			Feb 2016	Feb 2016	-	●	
Oakland Touchdown	Nov 2013	10	Sep 2014	Sep 2014	-	●	See Page 25
OTD 1			Jun 2010	Jun 2010	-	●	
OTD 2			Sep 2014	Sep 2014	-	●	
Submerged Electric Cable			Jan 2008	Jan 2008	-	●	
Existing Bridge Demolition	Sep 2014	18	Dec 2015	March 2017	15	●	
Stormwater Treatment Measures	Mar 2008		Mar 2008	Mar 2008	-	●	
SFOBB East Span Bridge Opening and Other Milestones							
Westbound Seismic Safety Open	Sep 2011	27	Dec 2013	Sep 2013	(3)	●	
Eastbound Seismic Safety Open	Sep 2012	15	Dec 2013	Sep 2013	(3)	●	
Bike/Ped Pathway Open to YBI			Sep 2015	Sep 2015	-	●	
Permanent Eastbound On Ramp Open			Sep 2015	Sep 2015	-	●	
Oakland Detour Eastbound Open			May 2011	May 2011	-	●	
Oakland Detour Westbound Open			Feb 2012	Feb 2012	-	●	
OTD Westbound Access			Aug 2009	Aug 2009	-	●	
YBI Detour Open			Sep 2009	Sep 2009	-	●	See Page 15
Antioch Bridge Seismic Retrofit							
Contract Completion			Jul 2012	Jul 2012	-	●	See Page 34
Seismic Safety Completion			Apr 2012	Apr 2012	-	●	
Dumbarton Bridge Seismic Retrofit							
Contract Completion			Sep 2013	Mar 2013	(6)	●	See Page 30
Seismic Safety Completion			Sep 2013	Jan 2013	(6)	●	

● Within approved schedule and budget

● Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated

● Known project impacts with forthcoming changes to approved schedules and budgets

⁽¹⁾ Figures may not sum up to totals due to rounding effects.

⁽²⁾ Construction administration of the OTD Detour is under the YBITS#1 contract.


⁽³⁾ Construction administration of the Cantilever segment will be under the YBITS#2 contract.

Regional Measure 1 Program Cost Summary (Millions)

	Contract Status	BATA Baseline Budget (July 2005)	BATA Approved Changes	Current BATA Approved Budget (December 2012)	Cost to Date (December 2012)	Current Cost Forecast (December 2012)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
Interstate 880/Route 92 Interchange Reconstruction								
Capital Outlay Construction	Complete	94.8	68.4	163.2	150.2	163.2	-	●
Capital Outlay Support		28.8	35.8	64.6	62.2	64.6	-	●
Capital Outlay Right-of-Way		9.9	7.3	17.2	14.7	17.2	-	●
Project Reserve		0.3	(0.3)	-	-	-	-	
Total I-880/SR-92 Interchange Reconstruction		133.8	111.2	245.0	227.1	245.0	-	
Other Completed Program Projects		1,978.8	182.6	2,161.4	2,089.3	2,161.4	-	
Total Regional Measure 1 Toll Bridge Program ¹		2,112.6	293.8	2,406.4	2,316.4	2,406.4	-	

- Within approved schedule and budget
 - Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated
 - Known project impacts with forthcoming changes to approved schedules and budgets
- ¹ Figures may not sum up to totals due to rounding effects.

Regional Measure 1 Program Schedule Summary

	BATA Baseline Completion Schedule (September 2005)	BATA Approved Changes (Months)	Current BATA Approved Completion Schedule (December 2012)	Current Completion Forecast (December 2012)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i = g + h	j	k = j - i	l	
Interstate 880/Route 92 Interchange Reconstruction							
Contract Completion							
Interchange Reconstruction	Dec 2010	9	Sep 2011	Sep 2011	-		See Page 39





Self-Anchored Suspension Bridge Roadway Lighting Installation

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge Seismic Retrofit Strategy

When a 250-ton section of the upper deck of the East Span collapsed during the 7.1-magnitude Loma Prieta Earthquake in 1989, it was a wake-up call for the entire Bay Area. While the East Span quickly reopened within a month, a critical question lingered: How could the Bay Bridge - a vital regional lifeline structure - be strengthened to withstand the next major earthquake? Seismic experts from around the world determined that to make each separate element seismically safe on a bridge of this size, the work must be divided into numerous projects. Each project presents unique challenges. Yet there is one common challenge - the need to accommodate the more than 280,000 vehicles that cross the bridge each day.



The San Francisco-Oakland Bay Bridge West Approach Overview

West Approach Seismic Replacement Project

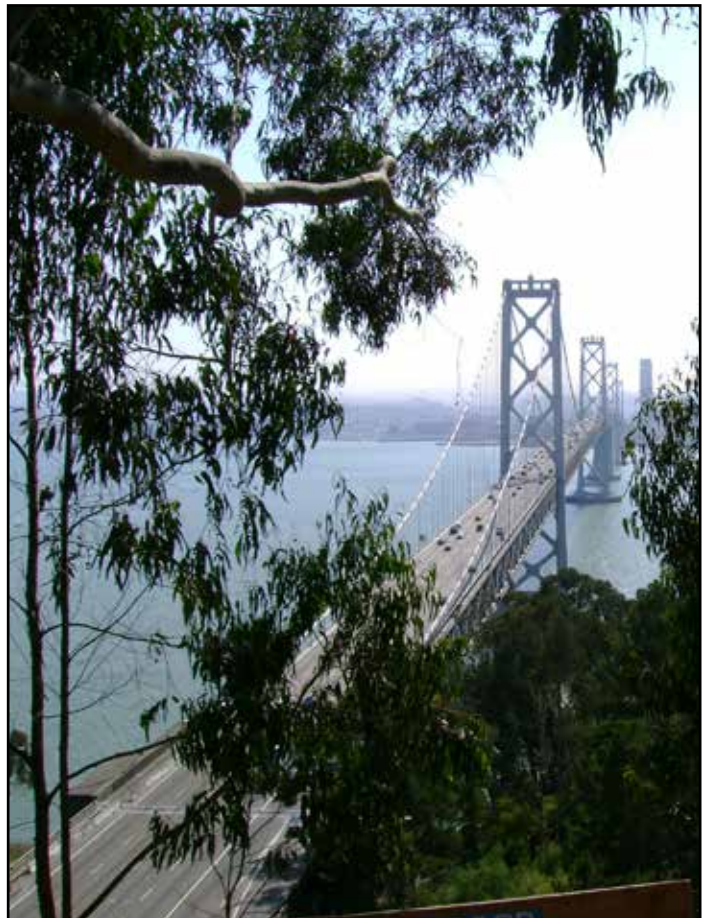
Project Status: Completed 2009

Seismic safety retrofit work on the West Approach in San Francisco, bounded on the west by Fifth Street and on the east by the anchorage of the west span at Beale Street, involved completely removing and replacing this one-mile stretch of Interstate 80, as well as six on-and off-ramps within the confines of the West Approach's original footprint. This project was completed on April 8, 2009.

West Span Seismic Retrofit Project

Project Status: Completed 2004

The West Span lies between Yerba Buena Island and San Francisco and is made up of two complete suspension spans connected at a center anchorage. Retrofit work included adding massive amounts of steel and concrete to strengthen the entire West Span, along with new seismic shock absorbers and bracing.



San Francisco-Oakland Bay Bridge West Span



East Span Seismic Replacement Project

Project Status: **In Construction**

Rather than a seismic retrofit, the two-mile long East Span is being completely rebuilt. When completed, the new East Span will consist of several different sections, but will appear as a single streamlined span. The eastbound and westbound lanes of the East Span will no longer include upper and lower decks. The lanes will instead be side-by-side, providing motorists with expansive views of the bay. These views will also be enjoyed by bicyclists and pedestrians, thanks to a new bike/pedestrian path on the south side of the bridge that will extend all the way to Yerba Buena Island. The new span is aligned north of the existing bridge to allow traffic to continue to flow on the existing bridge as crews build the new span.

The new span will feature the world's longest Self-Anchored Suspension (SAS) bridge that will be connected to an elegant roadway supported by piers (Skyway), which will gradually slope down toward the Oakland shoreline (Oakland Touchdown). A new transition structure on Yerba Buena Island (YBI) will connect the SAS to the YBI Tunnel and will transition the East Span's side-by-side traffic to the upper and lower decks of the tunnel and West Span.

When construction of the new East Span has been completed and vehicles have been safely rerouted to it, the original East Span will be demolished.



The Self-Anchored Suspension Bridge Tower and Roadway Deck Showing Suspender Cable Installation in Progress



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Summary

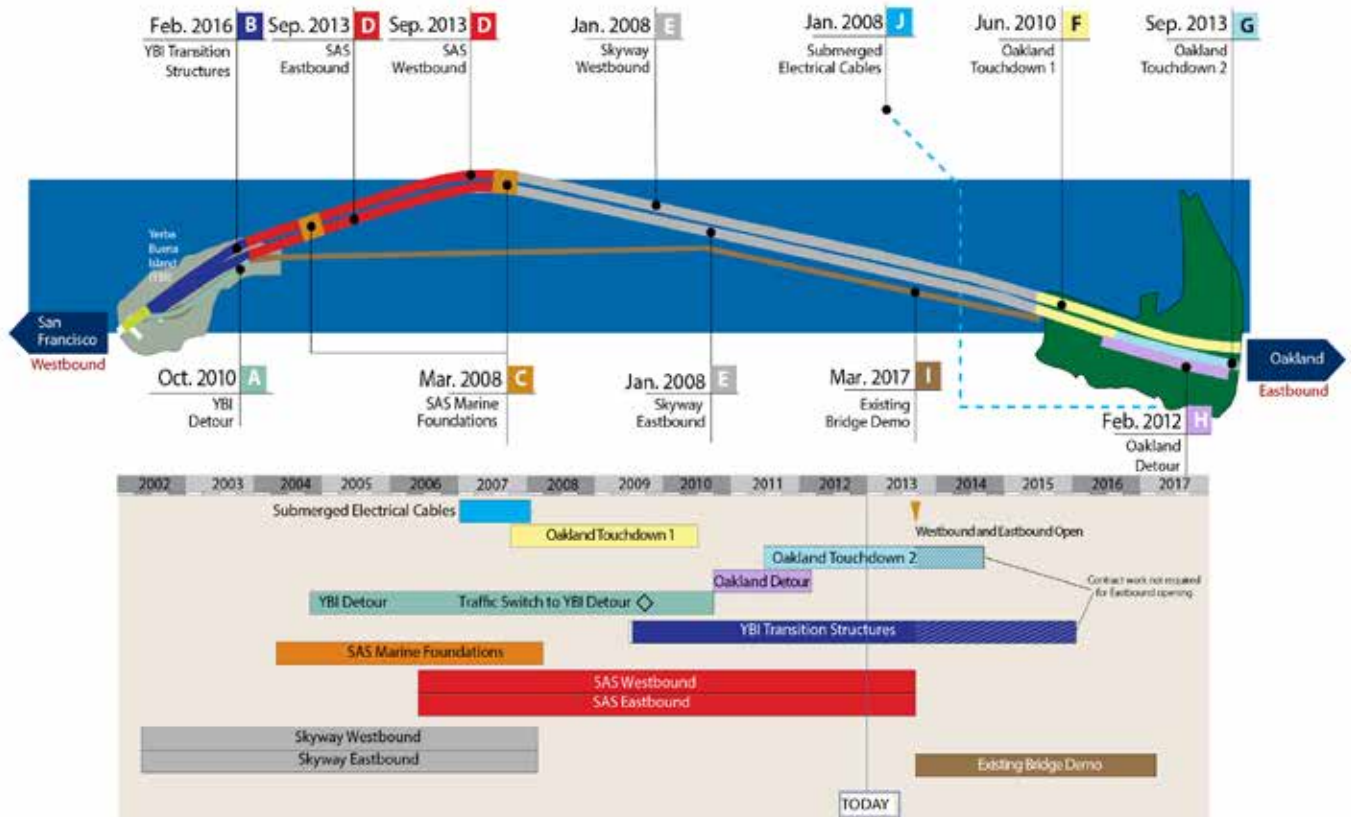
The new East Span bridge can be split into four major components - the Skyway, the Self-Anchored Suspension bridge in the middle, the Yerba Buena Island Transition Structures and Oakland Touchdown approaches. Each component is being constructed by one to three separate contracts that have been sequenced together to reduce schedule risk.

Highlighted below are the major East Span contracts and their schedules. The letter designation before each contract corresponds to contract descriptions in the report.



Overview of the San Francisco-Oakland Bay Bridge East Span Construction Progress

SFOBB East Span Work Sequence



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Detour (YBID)

As with all of the Toll Bridge Seismic Retrofit Program's projects, crews built the Yerba Buena Island Detour (YBID) structure without disrupting traffic. To accomplish this task, YBID eastbound and westbound traffic was shifted off the existing roadway and onto a temporary detour over Labor Day weekend 2009. Drivers will use this detour, just south of the original roadway, until traffic is moved onto the new East Span.

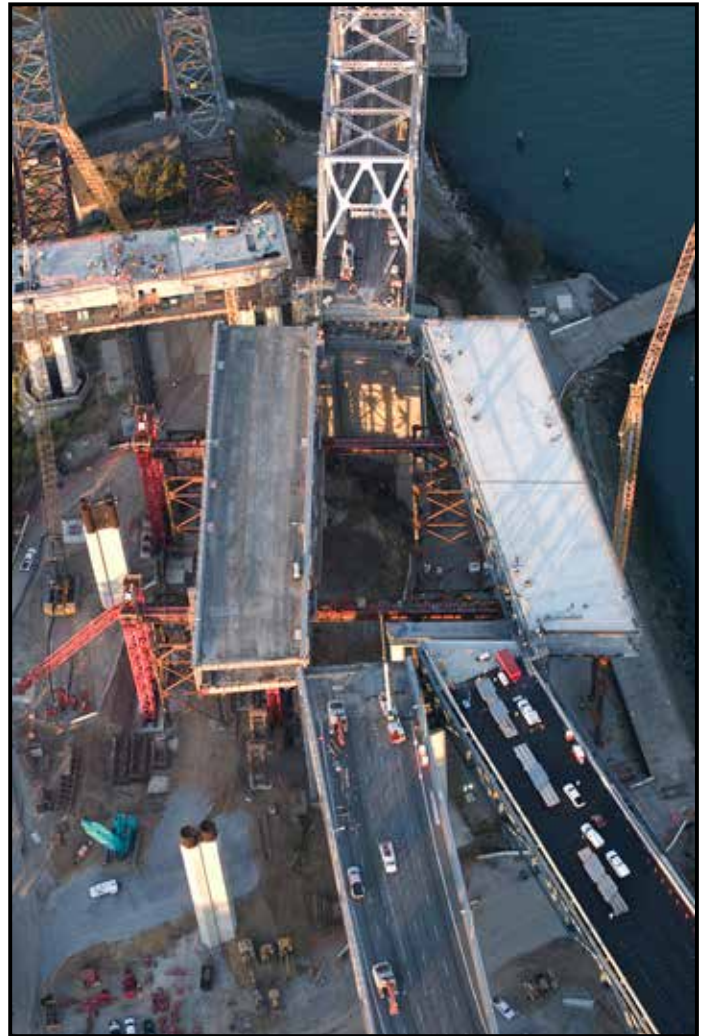
A YBID Contract

Contractor: C.C. Myers, Inc.

Approved Capital Outlay Budget: \$466.1 M

Status: Completed October 2010

This contract was originally awarded in early 2004 to construct the detour structure for the planned 2006 opening of the new East Span. Because of a lack of funding, the SAS Superstructure contract was re-advertised in 2005 and the opening was rescheduled to 2013. To better integrate the contract into the current East Span schedule and to improve seismic safety and mitigate future construction risks, the TBPOC approved a number of changes to the contract, including adding the deck replacement work near the tunnel that was rolled into place over the Labor Day 2007 weekend advancing future transition structure foundation work and making design enhancements to the temporary detour structure. These changes increased the budget and forecast for the contract to cover the revised project scope and reduce project risks.



YBID East Tie-In Rolled in on Labor Day 2009 Weekend



West Tie-In Phase # 1 Rolled in on Labor Day Weekend 2007

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Transition Structures (YBITS)

The new Yerba Buena Island Transition Structures contract (YBITS) will connect the new SAS bridge span to the existing Yerba Buena Island Tunnel, transitioning the new side-by-side roadway decks to the upper and lower decks of the tunnel. The new structures will be cast-in-place reinforced concrete structures that will look very similar to the already constructed Skyway structures. While some YBITS foundations and columns were advanced by the YBID contract, the remaining work is being completed under three separate YBITS contracts.

B YBITS #1 Contract

Contractor: MCM Construction, Inc.

Approved Capital Outlay Budget: \$199.7 M

Status: 80% Complete as of December 2012

MCM Construction, Inc. is the prime contractor constructing the Yerba Buena Island Transition Structure #1 (YBITS #1) contract. Their work includes completing the remaining foundations and the bridge deck structure from the existing double deck Yerba Buena Island Tunnel to the SAS bridge.

Status: MCM has substantially completed both the eastbound and westbound transition structures from the tunnel to the Hinge K area and transferred the Hinge K west area to the SAS contractor in early September and the Hinge K east area in early October 2012.

YBITS #2 and Cantilever Demolition Contract

Approved Capital Outlay Budget: \$92.4 M

Contractor: CEC & Silverado (JV)

Status: Contract Awarded

The YBITS #2 contract will demolish the detour viaduct after all traffic is shifted to the new bridge and will construct a new eastbound on-ramp to the bridge in its place. The new ramp will also provide the final link for bicycle/pedestrian access off the SAS bridge onto Yerba Buena Island. To expedite opening of a new eastbound on-ramp and the pedestrian/bicycle pathway from Yerba Buena Island, the TBPOC has decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge will be incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contract or contracts yet to be determined.

Status: The YBITS #2 contract, which includes the cantilever truss demolition, was awarded to California Engineering Contractors Inc/Silverado Contractors Inc. Joint Venture on November 28, 2012. The contractor's initial startup activities are planned to begin in March 2013 with actual dismantling to begin in September 2013, after the new Bay Bridge opening.

YBITS Landscaping Contract

Contractor: TBD

Approved Capital Outlay Budget \$3.3 M

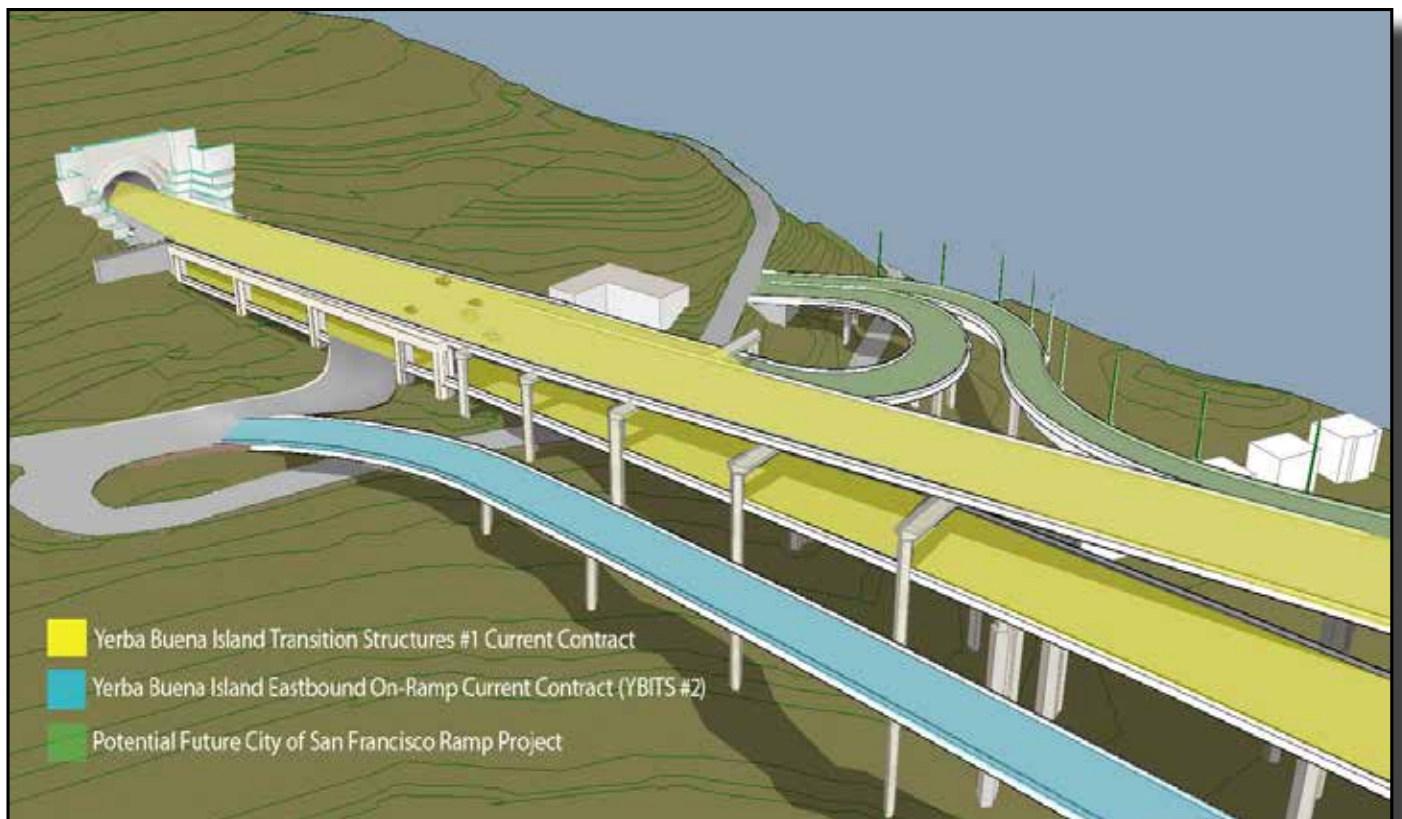
Status: In Design

Upon completion of the YBITS #2 work, a follow-on landscaping contract will be executed to replant and landscape the area.





Aerial View of the Yerba Buena Island Transition Structures of the San Francisco-Oakland Bay Bridge



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Self-Anchored Suspension (SAS) Bridge

If one single element bestows world class status on the new Bay Bridge East Span, it is the Self-Anchored Suspension (SAS) bridge. This engineering marvel will be the world's largest SAS span at 2,047 feet in length, as well as the first bridge of its kind built with a single tower.

The SAS was separated into three separate contracts - construction of the land-based foundations and columns at pier W2; construction of the marine-based foundations and columns at piers T1 and E2; and construction of the SAS steel superstructure, including the tower, roadway and cabling. Construction of the foundations at pier W2 and at piers T1 and E2 was completed in 2004 and 2007, respectively.

SAS Land Foundation Contract

Contractor: West Bay Builders, Inc.
Approved Capital Outlay Budget: \$26.5 M
Status: Completed October 2004

The twin W2 columns on Yerba Buena Island provide essential support for the western end of the SAS bridge, where the single main cable for the suspension span will extend down from the tower and wrap around and under the western end of the roadway deck. Each of these huge columns required massive amounts of concrete and steel and are anchored 80 feet into the island's solid bedrock.



SAS Marine E2 Foundation and the Skyway Westbound Column

C SAS Marine Foundations Contract

Contractor: Kiewit/FCI/Manson, Joint Venture
Approved Capital Outlay Budget: \$274.8 M
Status: Completed January 2008

Construction of the piers at E2 and T1 (see rendering on facing page) required significant on-water resources to drive the foundation support piles down, not only to bedrock, but also through the bay water and mud.

The T1 foundation piles extend 196 feet below the waterline and are anchored into bedrock with heavily reinforced concrete rock sockets that are drilled into the rock. Driven nearly 340 feet deep, the steel and concrete E2 foundation piles were driven 100 feet deeper than the deepest timber piles of the existing east span in order to get through the bay mud and reach solid bedrock.



D SAS Superstructure Contract

Contractor: American Bridge/Fluor Enterprises, Joint Venture

Approved Capital Outlay Budget: \$2.05 B

Status: **88% Complete as of December 2012**

The SAS bridge is not just another suspension bridge. Rising 525 feet above mean sea level and embedded in bedrock, the single-tower SAS span is designed to withstand a massive earthquake. Traditional main cable suspension bridges have twin cables with smaller suspender cables connected to them. While there will appear to be two main cables on the SAS, it is actually a single continuous cable. This single cable will be anchored within the eastern end of the roadway, carried over the tower and then wrapped around the two side-by-side decks at the western end.

The single-steel tower is made up of four separate legs connected by shear link beams, which function much like a fuse in an electrical circuit. These beams will absorb most of the impact from an earthquake, preventing damage to the tower legs.

Two hundred steel wire suspender ropes attached to 100 cable bands along the single main cable did the heavy lifting during load transfer. Sets of suspender ropes were gradually tensioned using hydraulic jacks. As each cable band carries two ropes, there are four hydraulic jacks (each exerting as much as 400 tons of force) at each corresponding location along the outside of the road decks tensioning and pulling the ropes into position. Following load transfer, remaining critical activities include wrapping of the main cable, painting, paving, striping, and installing and testing of the bridge's mechanical, electrical, and plumbing systems. The TBPOC's goal is to open the bridge to traffic in both directions by September 2013.

Status: Bike path support installation and cable wrapping continues and suspender painting is on going. Hinge A is almost complete and electrical, mechanical and piping installation continues.



Architectural Rendering of New Self-Anchored Suspension Span and Skyway

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Construction Sequence

STEP 1 - CONSTRUCT TEMPORARY SUPPORT STRUCTURES

All temporary support foundations and structures were completed between the Skyway and Yerba Buena Island by September 2010 to support the westbound and eastbound roadway box erections.

Status: Removal of the westbound and eastbound temporary support structures (cradles) started on October 24, 2012, and is ongoing.



STEP 2 - INSTALL ROADWAYS

All of the 28 steel roadway boxes and 17 crossbeams have been erected as of the end of October 2011.

Status: Roadway deck interior field painting and weld repair work for lifts 13 east and west and drop-in pieces lifts 12 east and west corner assemblies are almost complete. Mechanical, electrical and piping installation continues. Installation of Hinge A eastbound and westbound is ongoing. Hinge K eastbound soffit and rebar installation continues. Installation of eastbound and westbound architectural housing continues.



STEP 3 - INSTALL TOWER

All tower legs, tower grillage, tower saddle and tower head were erected using the self-rising crane as of mid-August 2012.

Status: Tower base shear-plate welding NDT continues. Tower head grating platform installation continues. Installation of eastbound and westbound traveler rails started in early December 2012 and will continue into the first quarter of 2013. The tower trestle removal was completed in December 2012.



STEP 4 - MAIN CABLE AND SUSPENDER INSTALLATION

The main cable haul started from the east end of the westbound roadway deck moving over the tower saddle, wrapping around pier W2 west deviation saddles and returning to the tower saddle to the east end of eastbound roadway deck where it is anchored. The cable band and suspender cables were then installed to lift the roadway deck off the temporary support structure.

Status: The suspender installation started in late May and was completed in August 2012. Load transfer began on September 4 and was completed on October 8, 2012. Cable wrapping started on the back span and main span on October 19, 2012, and is forecast for completion in January 2013. Tensioning of the suspender ropes and installation of the suspender collars began on October 30 and was completed in November 2012. Cleaning and painting of the upper suspenders began in mid October and will continue into early next year. Installation of the messenger cables started in mid-November and was completed in December 2012.



Step 4



Step 5

STEP 5 - WESTBOUND AND EASTBOUND SEISMIC SAFETY OPENING

The new bridge will now open simultaneously in both the westbound and eastbound directions on Labor Day, September 2, 2013.

Status: The SAS, YBITS#2 and OTD#2 construction activities are ongoing in support of the seismic safety opening scheduled for September 2013.

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

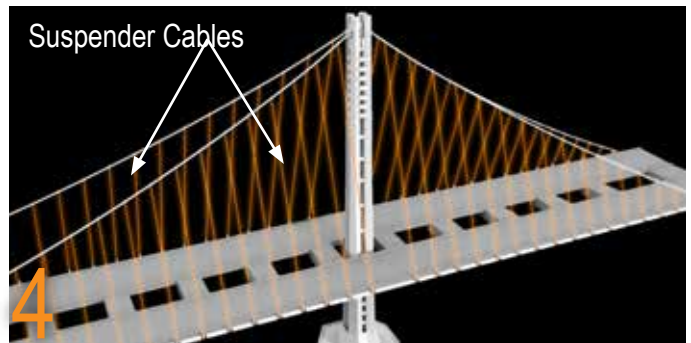
Self-Anchored Suspension (SAS) Superstructure Main Cable Completion Activities



1 CABLE STRAND HAULING

Crews haul the 137 individual steel wire strands that comprise the nearly 1-mile long single main cable. The strands are adjusted and then anchored into the east end of the SAS.

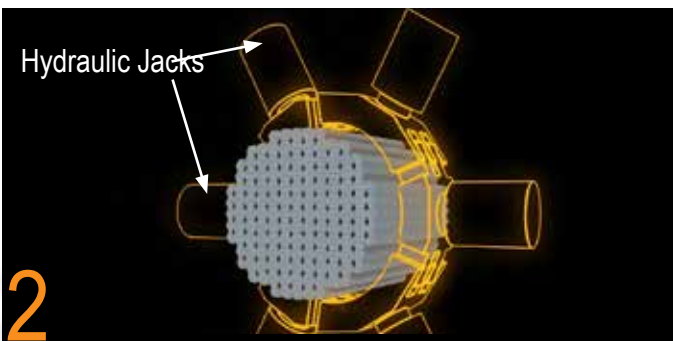
Status: Complete



4 SUSPENDER CABLES INSTALLATION

Workers begin placing the suspender cables that connect the main cable to the road-decks. Not all of the suspender cables need to be attached before load transfer begins.

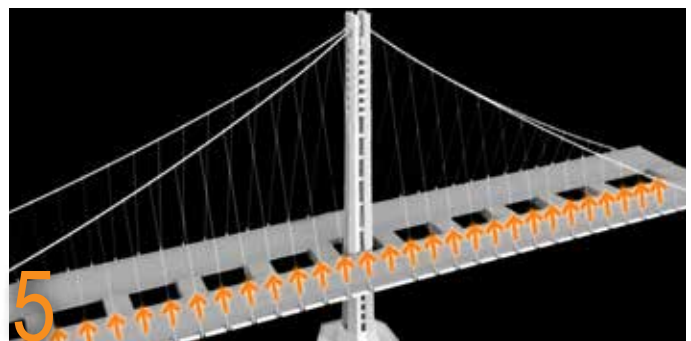
Status: Complete



2 CABLE STRAND COMPACTING

Four compacting machines containing hydraulic jacks are used to compress the 137 steel wire strands into the shape of the main cable. Temporary bands are placed to maintain the shape.

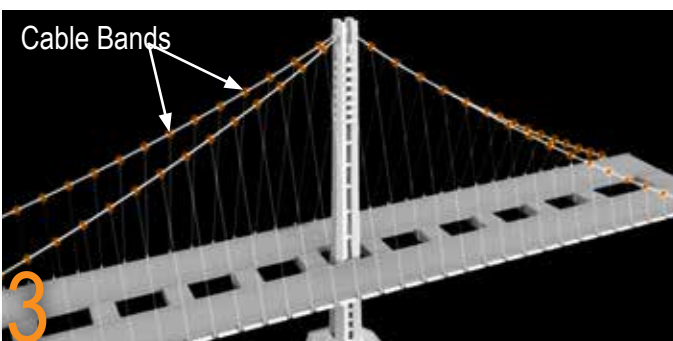
Status: Complete



5 LOAD TRANSFER (see facing page)

Using the attached suspender cables, crews begin the process of transferring the weight of the span from the temporary supports under the bridge to the main cable.

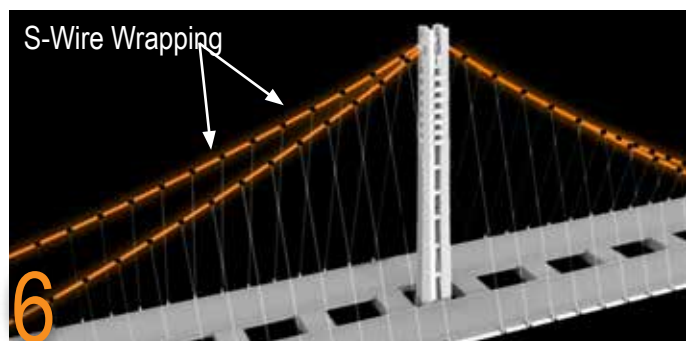
Status: Complete



3 CABLE BANDS INSTALLATION

Crews installed 114 permanent steel cable bands along the main cable. These bands maintain the shape of the cable, and serve as anchor points for the suspender cables.

Status: Complete



6 S-WIRE WRAP

After load transfer, the main cable is wrapped in S-wire to protect the cable against corrosion. After the cable is wrapped, it is painted.

Status: Started on 10/19/12 and is nearly complete

Load Transfer Sequence

Phase 1

Jack and tension 26 of 50 suspender groups each side – 8 at a time in 3 steps – 2 in the fourth step then final adjustments in steps 5 to 18. In the first 8 steps - 80% of the load will be transferred from the temporary truss to the cable.

Status: Complete

Load Transfer Phase 1

Phase 2

Jack and tension 3 more suspender groups out of 50 from each side to bring to a total of 29 of 50 each side.

Status: Complete

Load Transfer Phase 2

Phase 3

Jack and tension final 21 of 50 suspender groups each side to bring total suspenders tensioned to 50 out of 50 each side.

Status: Complete.

Load Transfer Phase 3

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Skyway

The Skyway, which comprises much of the new East Span, will drastically change the appearance of the Bay Bridge. Replacing the gray steel that currently cages drivers, a graceful, elevated roadway supported by piers will provide sweeping views of the bay.

E Skyway Contract

Contractor: Kiewit/FCI/Manson, Joint Venture

Approved Capital Outlay Budget: \$1.24 B

Status: Completed April 2008

Extending for more than a mile across Oakland mudflats, the Skyway is the longest section of the East Span. It sits between the new Self-Anchored Suspension (SAS) span and the Oakland Touchdown. In addition to incorporating the latest seismic-safety technology, the side-by-side roadway decks of the Skyway feature shoulders and lane widths built to modern standards.

The Skyway's decks are composed of 452 pre-cast concrete segments (standing three stories high), containing approximately 200 million pounds of structural steel, 120 million pounds of reinforcing steel, 200 thousand linear feet of piling and about 450 thousand cubic yards of concrete. These are the largest segments

of their kind ever cast and were lifted into place by custom-made winches.

The Skyway marine foundation consists of 160 hollow steel pipe piles measuring eight feet in diameter and dispersed among 14 sets of piers. The 365-ton piles were driven more than 300 feet into the deep bay mud. The new East Span piles were battered or driven in at an angle, rather than vertically, to obtain maximum strength and resistance.

Designed specifically to move during a major earthquake, the Skyway features several state-of-the-art seismic safety innovations, including 60-foot-long hinge pipe beams. These beams will allow deck segments on the Skyway to move, enabling the deck to withstand greater motion and to absorb more earthquake energy.

Status: All light poles that have been fabricated are in the process of installation. All remaining light poles will be fabricated, delivered and installed by seismic safety opening.



Rendering of the New San Francisco/Oakland Bridge Skyway and Self-Anchored Suspension Bridge



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Oakland Touchdown

When completed, the Oakland Touchdown (OTD) structures will connect Interstate 80 in Oakland to the side-by-side decks of the new East Span. For westbound drivers, the OTD will be their introduction to the graceful new East Span. For eastbound drivers from San Francisco, this section of the bridge will carry them from the Skyway to the East Bay, offering unobstructed views of the Oakland hills.

The OTD approach structures to the Skyway will be constructed in three phases. The first phase, constructed under the OTD #1 contract, built the new westbound approach structure. Due to physical constraints with the existing bridge, the OTD #1 contract was only able to construct a portion of the eastbound approach. To facilitate opening the bridge in both directions at the same time, the second phase of work, performed by the Oakland Detour contractor, included widening the upper deck of the Oakland end of the existing bridge to allow for a traffic shift to the north that removes the physical constraint to completing the eastbound structure. This phase was completed in April 2012. The third phase, to be constructed by a future OTD #2 contract, will complete the eastbound lanes and provide the traffic switch to the new structure in both directions, thus allowing the bridge to open simultaneously in both directions.

F Oakland Touchdown #1 Contract

Contractor: MCM Construction, Inc.

Approved Capital Outlay Budget: \$205.0 M

Status: Completed June 2010

The OTD #1 contract constructed the entire 1,000-foot-long westbound approach from the toll plaza to the Skyway. When open to traffic, the westbound approach structure will provide direct access to the westbound Skyway. In the eastbound direction, the contract constructed a portion of the eastbound structure and all of the eastbound foundations that are not in conflict with the existing bridge.

Status: MCM Construction, Inc. completed OTD #1 westbound and eastbound phase 1 on June 8, 2010.

G Oakland Touchdown #2 Contract

Contractor: Flatiron West, Inc.

Approved Capital Outlay Budget: \$62.0 M

Status: 26% Complete as of December 2012

Flatiron West, Inc. is the prime contractor constructing the Oakland Touchdown #2 contract that will complete the remaining portions of the Oakland Touchdown Approach structures from the existing toll plaza to the new span. The contractor is also responsible for the construction of the bike path and final landscaping of the area.

Status: The contractor is working on the eastbound approach structure and is installing the soffit forms and rebar. Precast wall panels and placing of the lightweight concrete fill on the approach structure is ongoing and is scheduled to be completed in early 2013.



Aerial View of the Eastbound Oakland Touchdown #2 Construction Progress

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Existing East Span Bridge Demolition

I Existing SFOBB Dismantling Contracts

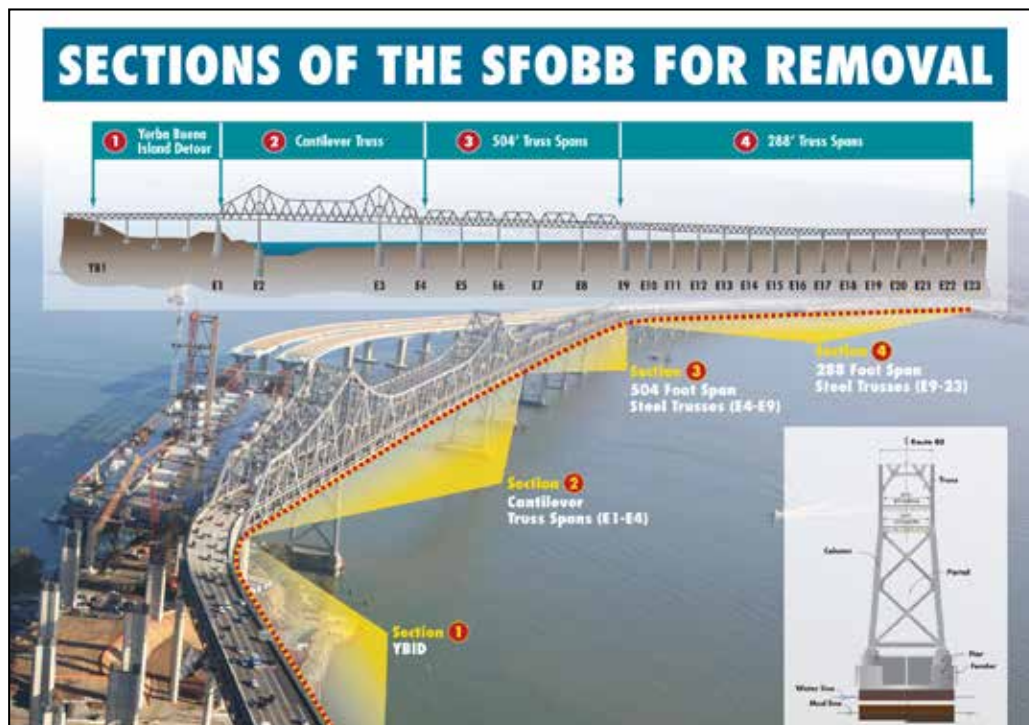
Approved Capital Outlay Budget: \$239.1 M

To expedite the opening of a new eastbound on ramp and the pedestrian/bicycle pathway from Yerba Buena Island to the SAS and to maximize contractor efficiencies, the TBPOC has decided to split the dismantling of the existing bridge into multiple contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge has been incorporated into the YBITS #2 contract. The dismantling of the remaining portions of the bridge will likely be performed under separate superstructure (above water) removal and marine foundation (below water) contracts. These contracts are still in design and may change in scope over time.

Status: The cantilever portion of the demolition contract was awarded to CEC and Silverado (JV) on November 28, 2012. Construction start-up activities are planned to begin in March 2013, with actual dismantling to begin after seismic safety opening in September 2013.



Dismantling Scope Included in the Future YBITS#2 Contract - YBI Detour E-1 column in center, Cantilever Bridge Deck at right





TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Other Contracts

A number of contracts needed to relocate utilities, clear areas of archeological artifacts and prepare areas for future work have already been completed. The last major contract will be the eventual demolition and removal of the existing bridge, which by that time will have served the Bay Area for nearly 80 years. Following is a status of some the other East Span contracts.

J Electrical Cable Relocation

Contractor: Manson Construction

Approved Capital Outlay Budget: \$9.6 M

Status: Completed January 2008

A submerged cable from Oakland that is close to where the new bridge will touch down supplies electrical power to Treasure Island. To avoid any possible damage to the cable during construction, two new replacement cables were run from Oakland to Treasure Island. The extra cable was funded by the Treasure Island Development Authority.



Archeological Investigations

Yerba Buena Island Substation

Contractor: West Bay Builders

Approved Capital Outlay Budget: \$11.3 M

Status: Completed May 2005

This contract relocated an electrical substation just east of the Yerba Buena Island Tunnel in preparation for the new East Span.



New YBI Electrical Substation

Stormwater Treatment Measures

Contractor: Diablo Construction, Inc.
 Approved Capital Outlay Budget: \$18.3 M
 Status: Completed December 2008

The Stormwater Treatment Measures contract implemented a number of best practices for the management and treatment of stormwater runoff. Focused on the areas around and approaching the toll plaza, the contract added new drainage and built new bio-retention swales and other related constructs.



Stormwater Retention Basin

East Span Interim Seismic Retrofit

Contractors: 1) California Engineering
 2) Balfour Beatty
 Approved Capital Outlay Budget: \$30.8 M
 Status: Completed October 2000

After the 1989 Loma Prieta Earthquake, and before the final retrofit strategy was determined for the East Span, Caltrans completed an interim retrofit of the existing bridge to prevent a catastrophic collapse of the bridge should a similar earthquake occur before the East Span was completely replaced. The interim retrofit was performed under two separate contracts that lengthened pier seats, added some structural members, and strengthened areas of the bridge so they would be more resilient during an earthquake.



Existing East Span Cantilever Section of the San Francisco-Oakland Bay Bridge

Pile Installation Demonstration

Contractor: Manson and Dutra, Joint Venture
 Approved Capital Outlay Budget: \$9.2 M
 Status: Completed December 2000

While large-diameter battered piles are common in offshore drilling, the new East Span is one of the first bridges to use them in its foundations. To minimize project risks and build industry knowledge, a pile installation demonstration project was initiated to prove the efficacy of the proposed technology and methodology. The demonstration was highly successful and helped result in zero contract change orders or claims for pile driving on the project.



Battered Pile Installation Demonstration

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Dumbarton Bridge Seismic Retrofit Project

Contractor: Shimmick Construction Company, Inc.

Approved Capital Outlay Budget: \$92.7 M

Status: 89% Complete as of December 2012

The current Dumbarton Bridge was opened to traffic in 1982 linking the cities of Newark in Alameda County and East Palo Alto in San Mateo County. The 1.6-mile long bridge has six lanes (three in each direction) and an eight-foot-wide bicycle/pedestrian pathway. The bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast-prestressed concrete delta girders and steel box girders supported on reinforced concrete piers. The current retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings.

Status: The main bridge structure between piers 16 through 31 is being raised approximately five inches in order for isolation bearings to be installed to separate the superstructure from the substructure during seismic events. In preparation, the bridge piers have been widened with reinforced concrete to accommodate the new bearings.

Along the reinforced concrete slab approaches, the bent caps have been extended and tied to new 48-inch diameter steel piles that have been installed to strengthen the bridge. Bent cap extensions along the east and west trestle approach are now complete.

Concrete has been placed and installation of jacking frames is complete at all of the 16 piers. The isolation bearing installation at piers 16 through 22 and piers 26 through 31 is complete. In addition, five bearings at pier 25 and 25 were installed, which totals 83 out of 96 bearings installed.

Work at the pumping plant is substantially complete. Fender rehabilitation work is ongoing at piers 23 and 24. Pier footing overlay concrete has been placed at piers 17 through 30.

Retrofitting of the existing piles at the Ravenswood pier and pier removal operation are ongoing. Removal of 34 out of 63 spans has been completed.

The Dumbarton Bridge was closed to traffic for the second time in 2012 during the Labor Day weekend. A full bridge closure was necessary in order for crews to replace the existing expansion joint on the eastern side of the bridge at Pier 31 with a state-of-the-art seismic joint. Seismic retrofit of hinge 21 and 25 is ongoing.



Ravenswood Pier Pile Removal



Repair to Settling Junction



Ravenswood Pier Demolition

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Other Completed Projects

In the 1990s, the State Legislature identified seven of the nine state-owned toll bridges for seismic retrofit. In addition to the San Francisco-Oakland Bay Bridge, these included the Benicia-Martinez, Carquinez, Richmond-San Rafael and San Mateo-Hayward bridges in the Bay Area, and the Vincent Thomas and Coronado bridges in Southern California. Other than the East Span of the Bay Bridge, the retrofits of all of the bridges have been completed as planned.

San Mateo-Hayward Bridge Seismic Retrofit Project

Project Status: Completed 2000

The San Mateo-Hayward Bridge seismic retrofit project focused on strengthening the high-rise portion of the span. The foundations of the bridge were significantly upgraded with additional piles.



High-Rise Section of San Mateo-Hayward Bridge

1958 Carquinez Bridge Seismic Retrofit Project

Project Status: Completed 2002

The eastbound 1958 Carquinez Bridge was retrofitted in 2002 with additional reinforcement of the cantilever thru-truss structure.

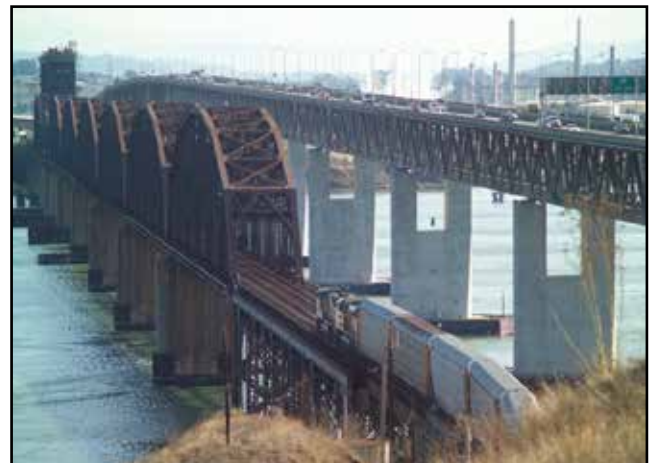


1958 Carquinez Bridge (foreground) with the 1927 Span (middle) under Demolition and the New Alfred Zampa Memorial Bridge (background)

1962 Benicia-Martinez Bridge Seismic Retrofit Project

Project Status: Completed 2003

The southbound 1962 Benicia-Martinez Bridge was retrofitted to "Lifeline" status with the strengthening of the foundations and columns and the addition of seismic bearings that allow the bridge to move during a major seismic event. The Lifeline status means the bridge is designed to sustain minor to moderate damage after a seismic event and to reopen quickly to emergency response traffic.



1962 Benicia-Martinez Bridge (right)

Richmond-San Rafael Bridge Seismic Retrofit Project

Project Status: Completed 2005

The Richmond-San Rafael Bridge was retrofitted to a “No Collapse” classification to avoid catastrophic failure during a major seismic event. The foundations, columns, and truss of the bridge were strengthened, and the entire low-rise approach viaduct from Marin County was replaced.



Richmond-San Rafael Bridge

Los Angeles-Vincent Thomas Bridge Seismic Retrofit Project

Project Status: Completed 2000

The Vincent Thomas Bridge is a 1,500-foot long suspension bridge crossing the Los Angeles Harbor in Los Angeles that links San Pedro with Terminal Island. The bridge was one of two state-owned toll bridges in Southern California (the other being the San Diego-Coronado Bridge). Opened in 1963, the bridge was seismically retrofitted as part of the TBSRP in 2000.



Los Angeles-Vincent Thomas Bridge

San Diego-Coronado Bridge Seismic Retrofit Project

Project Status: Completed 2002

The San Diego-Coronado Bridge crosses over San Diego Bay and links the cities of San Diego and Coronado. Opened in 1969, the 2.1-mile long bridge was seismically retrofitted as part of the TBSRP in 2002.



San Diego-Coronado Bridge

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Other Completed Projects

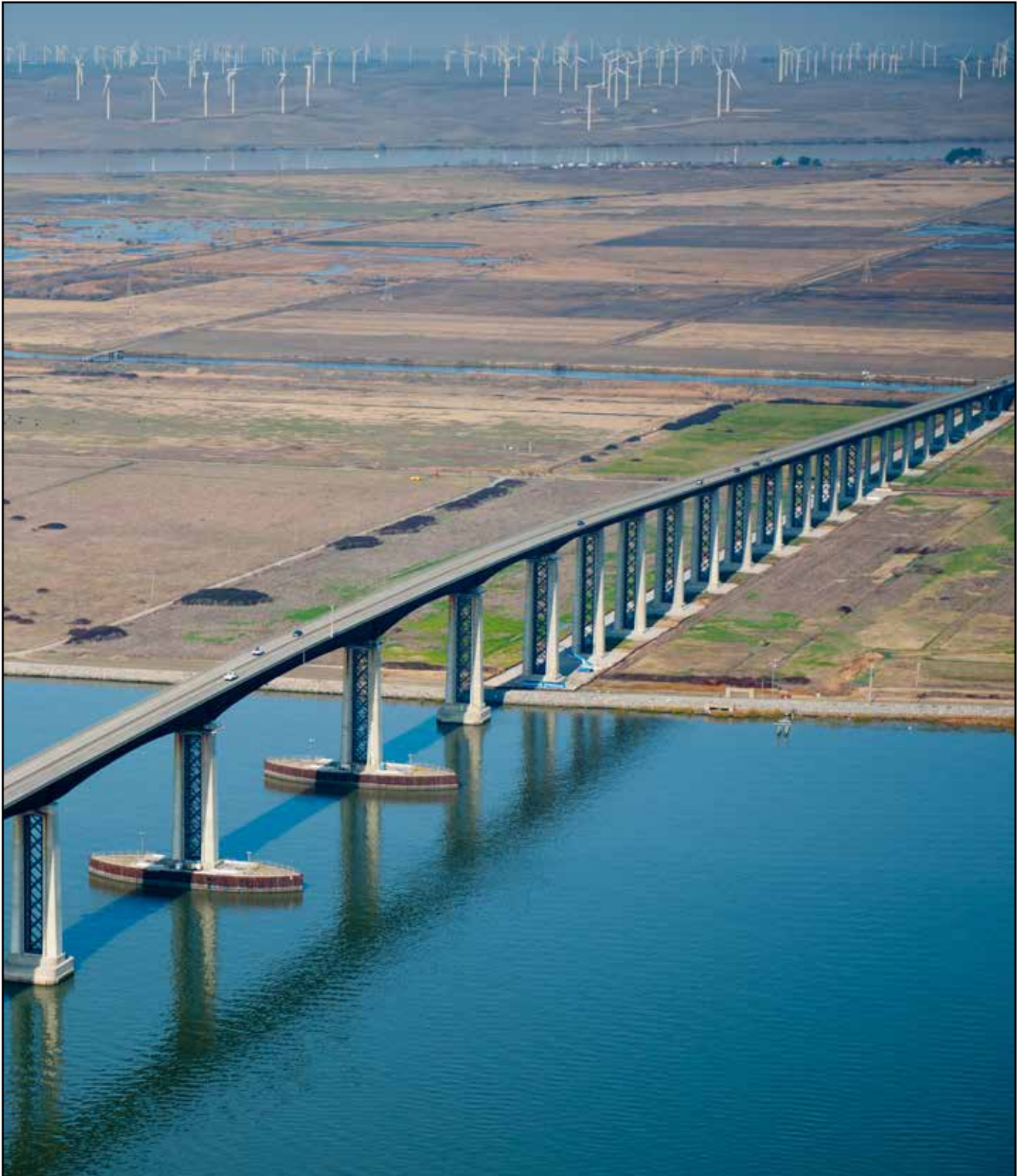
Antioch Bridge Seismic Retrofit Project

Project Status: Completed 2012

Serving the Delta region of the Bay Area, the Antioch Bridge takes State Route 160 traffic over the San Joaquin River, linking eastern Contra Costa County with Sacramento County. The current 1.8-mile-long steel plate girder bridge was opened in 1978 with one lane in each direction. The major retrofit measure for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents, and installing steel casings at all columns located at the Sherman Island approach slab bridge.



Antioch Bridge



Antioch Bridge Support Column Seismic Retrofit Project Completed

TOLL BRIDGE SEISMIC RETROFIT PROGRAM Risk Management Program Update

POTENTIAL DRAW ON PROGRAM RESERVE (PROGRAM CONTINGENCY)

The program contingency is currently \$329 million in accordance with the TBPOC approved budget. As of the end of the fourth quarter of 2012, the 50 percent probable draw on program contingency is \$122 million. The potential draw ranges from about \$50 million to \$175 million (refer to Figure 1).

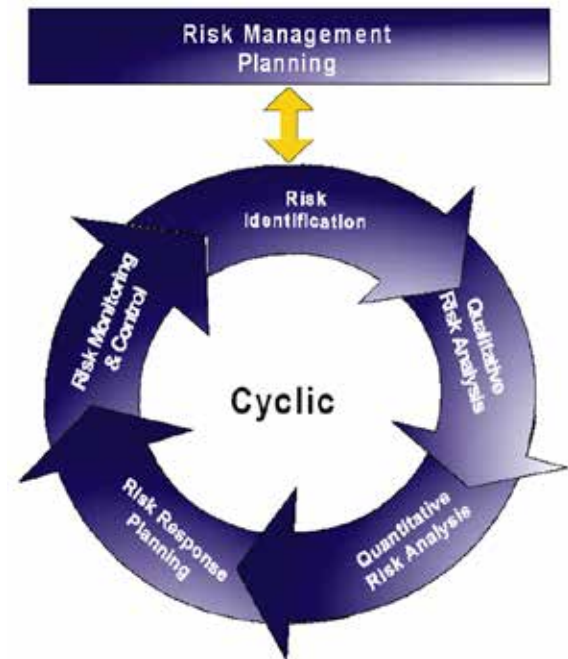
The current program contingency balance is sufficient to cover the cost of currently identified risks. In accordance with the approved TBSRP Risk Management Plan, risk mitigation actions are continuously developed and implemented to reduce the potential draw on the program contingency.

RISK MANAGEMENT DEVELOPMENTS

The 50 percent probable remaining program contingency Balance (i.e., the approved TBPOC program contingency balance less the 50% probable draw) increased by \$22 million this quarter.

Cost risks on the Self-Anchored Suspension Bridge (SAS) contract trended downward again this quarter primarily due to the completion of Phase 1 to 3 of load transfer. The schedule risks associated with completing the cable wrapping, electrical work and painting have decreased slightly this quarter. Mechanical Electrical Processes (MEP) installation on the main cable is taking longer than expected but the potential impacts are being mitigated, in part by providing additional environmental controls for the painting operations.

The next major activities on the critical path to bridge opening include completing wrapping the cable, painting the cable and suspenders, removal of cable temporary works, paving and striping the SAS and installing the cable electrical systems. Cable wrapping, cable electrical work and painting of the suspenders is progressing well. Removal of the cable temporary works is planned after electrical work is sufficiently completed. Risks associated with removal of the cable temporary works include difficulties in lowering components to the bridge deck, removal of attachments to the tower and deck, and repairs to the deck at the catwalk anchorages. The unique geometry of the cable system could potentially lead to access issues, and there is more hand painting than anticipated in the schedule. Painting is also weather-dependent, and delays could result if adverse weather conditions are encountered. Teams are actively engaged in each of these areas to mitigate the risks to the greatest extent possible.



Aggressive planning is underway for dismantling the marine foundations and trusses of the East Span. For the marine structures dismantling contract, the TBPOC approved a demonstration project that would remove the deep foundations using micro blasting. If these means and methods get approved, it would result in substantial cost and schedule savings, and a significant reduction in risks. Obtaining permits for the marine structures removal will be the most challenging portion of this contract because it involves underwater work in the San Francisco Bay. Caltrans has engaged various environmental, hydro-acoustic, and water quality experts to prepare the permitting documents and assist in mitigating the identified risks.

The presence of lead paint on the steel superstructure poses potential risks to worker safety and air quality. Caltrans is consulting with Cal-OSHA and the Bay Area Air Quality Management board to address this issue. Should these regulatory agencies make additional requirements of the project, those changes would be incorporated into the project documents so that all contractors could equitably price the added work. The steel superstructure removal contract's environmental team has developed a strategy for moving the bridge's cormorant colony from its existing location to the new platforms erected on the Skyway structure. The strategy was reviewed and approved by the permitting agencies and the plan is being implemented. This action will reduce the risk of bird nesting delaying the steel superstructure dismantling work.

RISK MANAGEMENT LOOK AHEAD

The corridor schedule is aggressive and there are risks to future activities on the critical path to bridge opening. The risk management team continues to monitor the SAS contract, YBITS #1 contract, and the updated corridor schedule in order to alert the TBPOC of approaching critical activities and to suggest mitigation responses for impending risks.

Various architectural enhancements and other project improvements are being assessed by the TBPOC and if approved, will be reflected in the potential draw on the program contingency curve in future quarters.



The Self-Anchored Suspension Bridge Newly Installed Light Fixtures

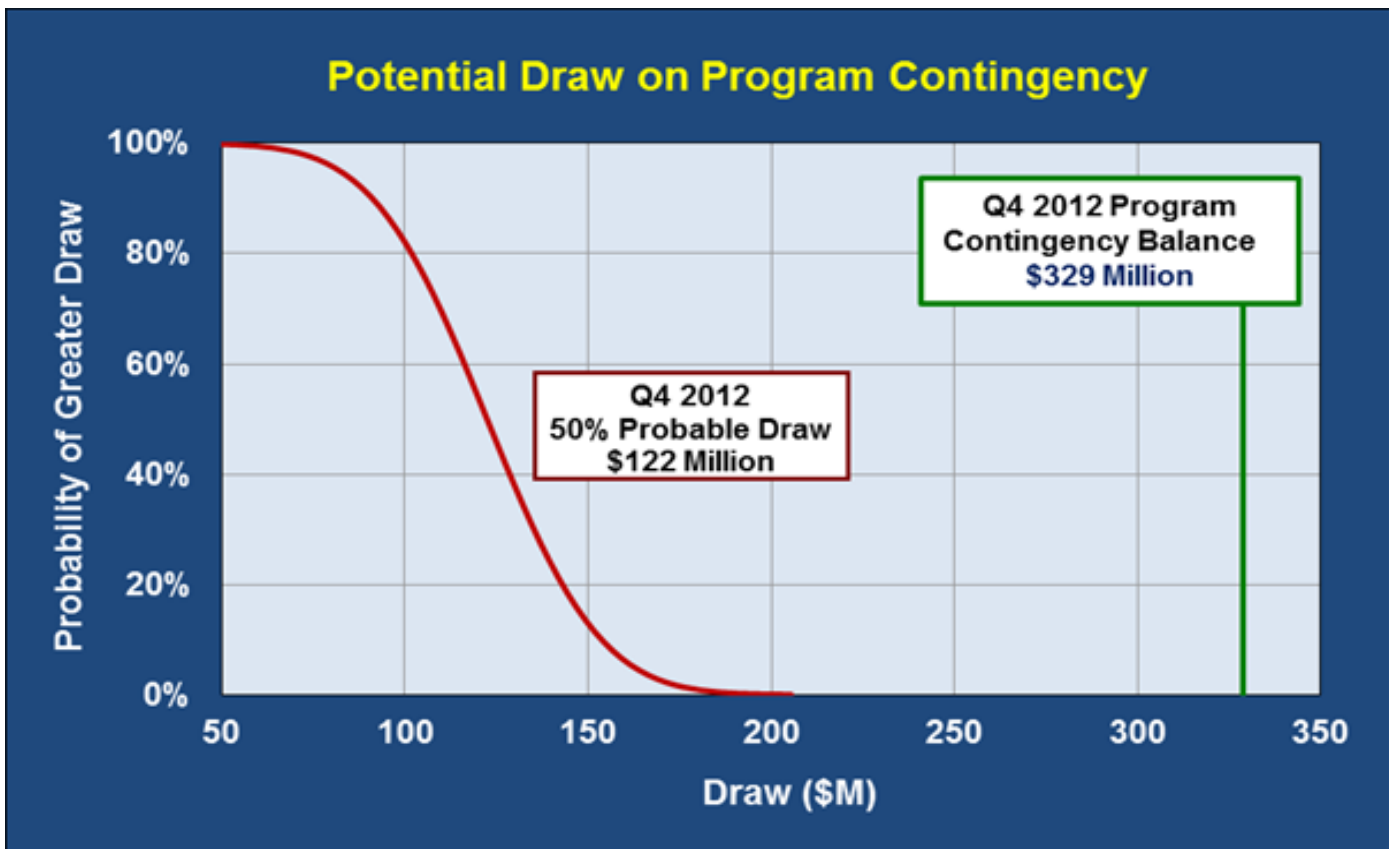


Figure 1 – Potential Draw on Program Contingency*

*Figure 1 Notes:

1. Proposed architectural enhancements and project improvements are excluded unless approved by the TBPOC.
2. Program Contingency may be used for other beneficial purposes than to cover risks. Therefore, the potential draw chart may not necessarily represent a forecast of the future balance of program contingency funds.

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Program Funding Status

AB 144 established a funding level of \$8.685 billion for the TBSRP. As of December 31, 2010, seismic retrofitting of Antioch and Dumbarton Bridges became part of the Toll Bridge Seismic Retrofit Program with the passage of AB 1175, which provided another \$750 million bringing the total funding to \$9.435 billion. The program funding sources are shown in Table 1- Program Budget.

Table 1—Program Budget as of December 31, 2012 (\$ Millions)

	Budgeted	Funding Available & Contribution
Financing		
Seismic Surcharge Revenue AB 1171	2,282.0	2,282.0
Seismic Surcharge Revenue AB 144	2,150.0	2,150.0
Seismic Surcharge Revenue AB 1175	750.0	750.0
BATA Consolidation	820.0	820.0
Subtotal - Financing	6,002.0	6,002.0
Contributions		
Proposition 192	790.0	789.0
San Diego Coronado Toll Bridge Revenue Fund	33.0	33.0
Vincent Thomas Bridge	15.0	6.9
State Highway Account ⁽¹⁾⁽²⁾	745.0	745.0
Public Transportation Account ⁽¹⁾⁽³⁾	130.0	130.0
ITIP/SHOPP/Federal Contingency ⁽⁴⁾	448.0	448.0
Federal Highway Bridge Replacement and Rehabilitation (HBRR)	642.0	642.0
SHA - East Span Demolition	300.0	-
SHA - "Efficiency Savings" ⁽⁵⁾	130.0	130.0
Redirect Spillover	125.0	125.0
Motor Vehicle Account	75.0	75.0
Subtotal - Contribution	3,433.0	3,123.9
Total Funding	9,435.0	9,125.9
Encumbered to Date		8,270.3
Remaining Unallocated		855.6
Expenditures :		
Capital Outlay		6,096.6
State Operations		1,648.7
Antioch and Dumbarton Expenditures by BATA		12.2
Total Expenditures		7,757.5
Encumbrances :		
Capital Outlay		486.1
State Operations		26.7
Total Encumbrances		512.8
Total Expenditures and Encumbrances		8,270.3

(1) The California Transportation Commission adopted a new schedule and changed the PTA/SHA split on December 15, 2005.

(2) To date, \$645 million has been transferred from the SHA to the TBSRP, including the full \$290 million transfer scheduled by the CTC to occur in 2005-06. An additional \$100 million has been expended directly from the account.

(3) To date, \$130 million has been transferred from the PTA to the TBSRP, including the full amount of all transfers scheduled by the CTC.

(4) To date, \$63 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" identified under AB 144. Approximately \$67 million remains to be distributed as scheduled by the CTC.

(5) As of January 1, 2010, seismic retrofitting of Antioch and Dumbarton Bridges became part of the Toll Bridge Seismic Retrofit Program with the passage of AB 1175.

(6) Expenditure as of May 31, 2012.

Summary of the Toll Bridge Oversight Committee (TBPOC) Expenses

Pursuant to Streets and Highways Code Section 30952.1 (d), expenses incurred by Caltrans, BATA, and the California Transportation Commission (CTC) for costs directly related to the duties associated with the TBPOC are to be reimbursed by toll revenues. Table 3 -Toll Bridge Program Oversight Committee Estimated Expenses: July 1, 2005 through December 31, 2012 shows expenses through December 31, 2012 for TBPOC functioning, support, and monthly and quarterly reporting.

Table 2—CTC Toll Bridge Seismic Retrofit Program Contributions Adopted December 2005
Schedule of Contributions to the Toll Bridge Seismic Retrofit Program (\$ Millions)

Source	Description	2005-06 (Actual)	2006-07 (Actual)	2007-08 (Actual)	2008-09 (Actual)	2009-10 (Actual)	2010-11 (Actual)	2011-12 (Actual)	2012-13 (Actual)	2013-14	Total
AB 1171	SHA	290									290
	PTA	80	40								120
	Highway Bridge Replacement and Rehabilitation (HBRR)	100	100	100	42						342
	Contingency				1	99	100	100	148		448
AB 144	SHA*	2	8				53	50	17		130
	Motor Vehicle Account (MVA)	75									75
	Spillover		125								125
	SHA**									300	300
	Total	547	273	100	43	99	153	150	165	300	1830

* Caltrans Efficiency Savings

** SFOBB East Span Demolition Cost

Table 3—Toll Bridge Program Oversight Committee
Estimated Expenses: July 1, 2005 through September 30, 2012 (\$ Millions)

Agency/Program Activity	Expenses
BATA	2.4
Caltrans	2.6
CTC	2.6
Reporting	5.1
Total Program	12.5

The “Cormorant Condos” beneath the Skyway of the new San Francisco-Oakland Bay Bridge (Courtesy of Sherwood Design Engineers)



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Quarterly Environmental Compliance Highlights

Overall environmental compliance for the San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Safety (ESSS) Project has been a success during the fourth quarter of 2012. The tasks for the current quarter are focused on mitigation, monitoring, and environmental permitting. Key successes in this quarter are as follows:

The Standard Tracking and Exchange Vehicle for Environmental (STEVE) System was updated regularly with permitting and compliance information for the SFOBB Project.

Bird monitoring was conducted weekly in all active construction areas. The goal of this monitoring is to document potential impacts to birds from construction activities. Monitors did not observe any indication that birds were disturbed due to the east span construction activities.

Peregrine falcon monitoring for the 2012/2013 nesting season began on December 6, 2012, and will continue through August 2013. Both members of the resident pair of peregrine falcons have been observed during most weekly surveys. There has been no indication that the pair has started nesting. Weekly surveys will continue and may increase to as many as six days a week as the nesting season progresses.

In preparation for the 2013 nesting season, Caltrans worked to develop a multifaceted bird -management strategy to prevent impacts to nesting birds during both construction and dismantling of the existing east span. During the fourth quarter of 2012, a cormorant management program was developed in coordination with Caltrans construction to address the avoidance of impacts to nesting cormorants during bridge dismantling. This program comprises the enticement of cormorants to alternate nesting habitat on the new east span and deterrence of cormorant nesting on the existing east span. Monitoring will also be conducted during the 2013 nesting season to record various aspects of the cormorant nesting cycle on the existing east span.

SFOBB environmental compliance and storm water pollution prevention plan (SWPPP) inspections were conducted weekly at all active project sites. The project team continues to work closely with construction to ensure compliance with environmental permits and regulations and to improve best management practices.

Caltrans hosted a San Francisco Bay Conservation and Development Commission (BCDC) update meeting on October 15, 2012. This meeting was held to discuss new and outstanding BCDC permitting and compliance items for the SFOBB Project. Items discussed included the E3 Blasting Demonstration Project, improvements on the U.S. Coast Guard Base on Yerba Buena island, the temporary pedestrian / bicycle path connection at Oakland Touchdown, shorebird roosting habitat mitigation and existing east span marine foundation retention.

Caltrans held an interagency meeting regarding the E3 Blasting Demonstration Project on November 7, 2012. Various regulatory agencies attended the meeting including the California Department of Fish and Wildlife, Regional Water Quality Control Board, BCDC, United States Fish and Wildlife Service, United States Coast Guard (USCG) National Marine Fisheries Service (NMFS) and the United States Army Corps of Engineers. Caltrans discussed the preliminary aspects of the E3 Demonstration project and explained that there would be more information and meetings to follow as the scope is further developed. The final meeting minutes were distributed to all attending parties on November 26, 2012.

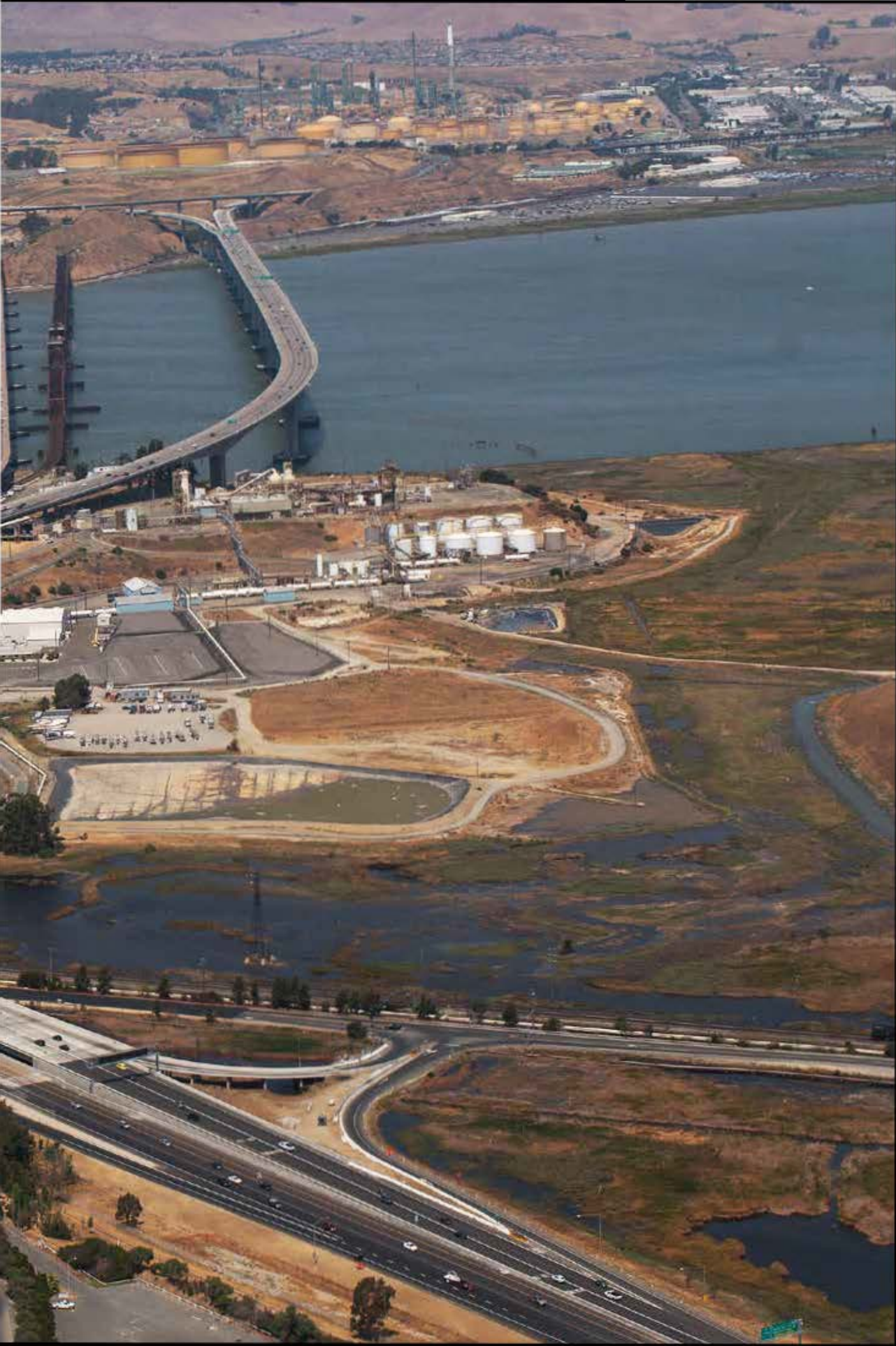
Caltrans prepared and submitted the Final Hydroacoustic and Bird Predation Monitoring Report for Pile Driving for a Temporary Access Trestle and Temporary Falsework at the Oakland Shoreline on December 6, 2012, to National Oceanic and Atmospheric Administration (NOAA) Fisheries.

Caltrans has been in contact with NMFS regarding the SFOBB Incidental Harassment Authorization (IHA) for the sake of marine mammals. On December 13, 2012, NMFS stated that the final IHA document was under review by the NMFS General Counsel and would be finalized in early January.

Caltrans is preparing amendment number 33 to BCDC, Permit No. 2001.008 (formerly permit No. 8-01). Proposed amendment 33 addresses two main items, which are (1) improvements to the USCG Base on Yerba Buena Island and (2) additional details regarding the public access improvements for the pedestrian / bicycle path on the new eastern span, and the Yerba Buena Island public access connector and terminus. The amendment should be finalized and submitted to BCDC in early January 2013.



Aerial View of the Benicia-Martinez Bridge



REGIONAL MEASURE 1 TOLL BRIDGE PROGRAM

REGIONAL MEASURE 1 PROGRAM

Completed Projects

In November 1988, Bay Area voters approved Regional Measure 1 (RM 1), which authorized a standard auto toll of \$1 for all seven state-owned Bay Area toll bridges to be used to reduce congestion in the bridge corridor.

Richmond Parkway Construction Project

Project Status: **Completed 2001**

The final connections to the Richmond Parkway from Interstate 580 near the Richmond-San Rafael Bridge were completed in May 2001.

San Mateo-Hayward Bridge Widening Project

Project Status: **Completed 2003**

This project expanded the low-rise concrete trestle section of the San Mateo-Hayward Bridge to allow for three lanes in each direction to match the existing configuration of the high-rise steel section of the bridge.

New Alfred Zampa Memorial (Carquinez) Bridge Project

Project Status: **Completed 2003**

The new western span of the Carquinez Bridge, which replaced the original 1927 span, is a twin-towered suspension bridge with three mixed-flow lanes, a new carpool lane, shoulders and a bicycle/pedestrian pathway.

Bayfront Expressway (State Route 84) Widening Project

Project Status: **Completed 2004**

This project expanded and improved the roadway from the Dumbarton Bridge touchdown to the US 101/ Marsh Road interchange by adding additional lanes and turn pockets and improving bicycle/pedestrian access in the area.

Richmond-San Rafael Bridge Rehabilitation Projects

Project Status: **Completed 2006**

Three major rehabilitation projects for the Richmond-San Rafael Bridge were completed. In 2001, the final connections to the Richmond Parkway were completed. In 2005, seismic retrofit, trestle and fender system replacement work was completed. In 2006, the bridge was resurfaced along with deck joint repairs.



Widening of the San Mateo-Hayward Bridge Trestle on Left



New Alfred Zampa Memorial (Carquinez) Bridge Soon after Opening to Traffic, with Crockett Interchange Still under Construction



New Richmond-San Rafael Bridge West Approach Trestle under Construction

Benicia-Martinez Bridge Project

Project Status: Completed 2007

The new Congressman George Miller Bridge opened to traffic in August 2007, taking its place alongside the existing 1962 Benicia-Martinez Bridge, which is named for Congressman Miller's father, the late George Miller, Jr. The new bridge carries five lanes of northbound Interstate 680 traffic, while the existing bridge is being upgraded to carry four lanes of southbound traffic and a new bicycle/pedestrian pathway.



The New Congressman George Miller Bridge (New Benicia-Martinez Bridge)

Benicia-Martinez Bridge Rehabilitation Project

Project Status: Completed 2009

A two-year project to rehabilitate and reconfigure the original Benicia-Martinez Bridge began shortly after the opening of the new Congressman George Miller Bridge. The existing 1.2-mile roadway surface on the steel deck truss bridge was modified to carry four lanes of southbound traffic (one more than before) - with shoulders on both sides - plus a bicycle/pedestrian path on the west side of the span that connects to Park Road in Benicia and to Marina Vista Boulevard in Martinez. Reconstruction of the east side of the bridge and approaches was completed in August 2008. Reconstruction of the west side of the bridge and its approaches and construction of the bicycle/pedestrian pathway were completed in August 2009.



Benicia-Martinez Bridge Bicycle/Pedestrian Path

Interstate 880/State Route 92

Project Status: Completed 2011

This corridor was consistently one of the Bay Area's most congested during the evening commute. This was due in part to the lane merging and weaving that was required by the then-existing cloverleaf interchange. The new interchange features direct freeway-to-freeway connector ramps that now increase traffic capacity and improve overall safety and traffic operations in the area. With the new direct-connector ramps, drivers coming off of the San Mateo-Hayward Bridge can access Interstate 880 without having to compete with traffic headed onto east Route 92 from south Interstate 880. A Caltrans landscaping project is ongoing.



Aerial View of Completed 880/92 Interchange Project



Self-Anchored Suspension Bridge Installed Light Fixture and Cable Band Caulking in Process



APPENDICES

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Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through December 31, 2012 (\$ Millions)

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (12/2012) e = c + d	Cost to Date (12/2012) f	Cost Forecast (12/2012) g	At- Completion Variance h = g - e
SFOBB East Span Replacement Project						
Capital Outlay Support	959.3	262.3	1,221.6	1,105.3	1,278.6	57.0
Capital Outlay Construction	4,492.2	571.5	5,063.7	4,291.1	5,132.3	68.6
Other Budgeted Capital	35.1	(32.8)	2.3	0.7	7.7	5.4
Total	5,486.6	801.0	6,287.6	5,397.1	6,418.6	131.0
SFOBB West Approach Replacement						
Capital Outlay Support	120.0	(1.0)	119.0	119.2	119.0	-
Capital Outlay Construction	309.0	41.7	350.7	331.8	338.1	(12.6)
Total	429.0	40.7	469.7	451.0	457.1	(12.6)
SFOBB West Span Retrofit						
Capital Outlay Support	75.0	(0.2)	74.8	74.9	74.8	-
Capital Outlay Construction	232.9	(5.5)	227.4	227.4	227.4	-
Total	307.9	(5.7)	302.2	302.3	302.2	-
Richmond-San Rafael Bridge Retrofit						
Capital Outlay Support	134.0	(7.0)	127.0	126.8	127.0	-
Capital Outlay Construction	780.0	(90.5)	689.5	667.5	689.5	-
Total	914.0	(97.5)	816.5	794.3	816.5	-
Benicia-Martinez Bridge Retrofit						
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
Total	177.8	-	177.8	177.8	177.8	-
Carquinez Bridge Retrofit						
Capital Outlay Support	28.7	0.1	28.8	28.8	28.8	-
Capital Outlay Construction	85.5	(0.1)	85.4	85.4	85.4	-
Total	114.2	-	114.2	114.2	114.2	-
San Mateo-Hayward Retrofit						
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	(0.1)	135.3	135.3	135.3	-
Total	163.5	(0.1)	163.4	163.4	163.4	-
Vincent Thomas Bridge Retrofit (Los Angeles)						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	(0.1)	42.0	42.0	42.0	-
Total	58.5	(0.1)	58.4	58.4	58.4	-
San Diego-Coronado Bridge Retrofit						
Capital Outlay Support	33.5	(0.3)	33.2	33.2	33.2	-
Capital Outlay Construction	70.0	(0.6)	69.4	69.4	69.4	-
Total	103.5	(0.9)	102.6	102.6	102.6	-

Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through December 31, 2012 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (12/2012)	Cost to Date (12/2012)	Cost Forecast (12/2012)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Antioch Bridge						
Capital Outlay Support	-	31.0	31.0	17.3	23.8	(7.2)
Capital Outlay Support by BATA				6.2		
Capital Outlay Construction	-	51.0	51.0	47.0	50.3	(0.7)
Total	-	82.0	82.0	70.5	74.1	(7.9)
Dumbarton Bridge						
Capital Outlay Support	-	56.0	56.0	35.1	56.0	-
Capital Outlay Support by BATA				6.0		
Capital Outlay Construction	-	92.7	92.7	59.3	72.0	(20.7)
Total	-	148.7	148.7	100.4	128.0	(20.7)
Subtotal Capital Outlay Support	1,433.1	340.9	1,774.0	1,635.4	1,823.8	49.8
Subtotal Capital Outlay	6,286.8	660.0	6,946.8	6,095.9	6,981.4	34.6
Subtotal Other Budgeted Capital	35.1	(32.8)	2.3	0.7	7.7	5.4
Miscellaneous Program Costs	30.0	-	30.0	25.5	30.0	-
Subtotal Toll Bridge Seismic Retrofit Program	7,785.0	968.1	8,753.1	7,757.5	8,842.9	89.8
Net Programmatic Risks*	-	-	-	-	32.6	32.6
Program Contingency	900.0	(571.1)	328.9	-	206.5	(122.4)
Total Toll Bridge Seismic Retrofit Program ¹	8,685.0	397.0	9,082.0	7,757.5	9,082.0	-

¹ Figures may not sum up to totals due to rounding effects.

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through December 31, 2012 (\$ Millions)

Bridge	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and encumbrances as of 12/2012 see Note (1)	Estimated costs not yet spent or encumbered as of 12/2012	Total Forecast as of 12/2012
a	b	c	d	e	f = d + e
Other Completed Projects					
Capital Outlay Support	144.9	144.6	144.6	-	144.6
Capital Outlay	472.6	471.9	472.8	(1.0)	471.8
Total	617.5	616.5	617.4	(1.0)	616.4
Richmond-San Rafael					
Capital Outlay Support	134.0	127.0	126.8	0.2	127.0
Capital Outlay	698.0	689.5	667.5	22.0	689.5
Project Reserves	82.0	-	-	-	-
Total	914.0	816.5	794.3	22.2	816.5
West Span Retrofit					
Capital Outlay Support	75.0	74.8	74.9	(0.1)	74.8
Capital Outlay	232.9	227.4	232.9	(5.5)	227.4
Total	307.9	302.2	307.8	(5.6)	302.2
West Approach					
Capital Outlay Support	120.0	119.0	119.2	(0.2)	119.0
Capital Outlay	309.0	350.7	346.7	(8.6)	338.1
Total	429.0	469.7	465.9	(8.8)	457.1
SFOBB East Span - Skyway					
Capital Outlay Support	197.0	181.2	181.2	-	181.2
Capital Outlay	1,293.0	1,237.2	1,237.3	(0.1)	1,237.2
Total	1,490.0	1,418.4	1,418.5	(0.1)	1,418.4
SFOBB East Span - SAS - Superstructure					
Capital Outlay Support	214.6	419.0	419.9	51.2	471.1
Capital Outlay	1,753.7	2,046.8	1,963.1	87.5	2,050.6
Total	1,968.3	2,465.8	2,383.0	138.7	2,521.7
SFOBB East Span - SAS - Foundations					
Capital Outlay Support	62.5	37.6	37.6	-	37.6
Capital Outlay	339.9	301.3	309.3	(4.2)	305.1
Total	402.4	338.9	346.9	(4.2)	342.7
Small YBI Projects					
Capital Outlay Support	10.6	10.2	10.2	0.4	10.6
Capital Outlay	15.6	15.2	15.5	0.2	15.7
Total	26.2	25.4	25.7	0.6	26.3
YBI Detour					
Capital Outlay Support	29.5	87.7	87.9	(0.2)	87.7
Capital Outlay	131.9	466.1	492.9	(19.6)	473.3
Total	161.4	553.8	580.8	(19.8)	561.0
YBI- Transition Structures					
Capital Outlay Support	78.7	106.4	92.2	22.8	115.0
Capital Outlay	299.4	295.4	360.6	(38.3)	322.3
Total	378.1	401.8	452.8	(15.5)	437.3

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through December 31, 2012 (\$ Millions) Cont.

Contract	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and encumbrances as of 12/2012 see Note (1)	Estimated costs not yet spent or encumbered as of 12/2012	Total Forecast as of 12/2012
a	b	c	d	e	f = d + e
Oakland Touchdown					
Capital Outlay Support	74.4	112.9	101.4	22.7	124.1
Capital Outlay	283.8	323.7	250.7	80.9	331.6
Total	358.2	436.6	352.1	103.6	455.7
East Span Other Small Projects					
Capital Outlay Support	212.3	206.6	197.9	8.7	206.6
Capital Outlay	170.8	141.3	118.4	36.3	154.7
Total	383.1	347.9	316.3	45.0	361.3
Existing Bridge Demolition					
Capital Outlay Support	79.7	59.9	3.6	41.1	44.7
Capital Outlay	239.2	239.1	-	249.5	249.5
Total	318.9	299.0	3.6	290.6	294.2
Antioch Bridge					
Capital Outlay Support	-	31.0	17.3	0.4	17.7
Capital Outlay Support by BATA			6.1	-	6.1
Capital Outlay	-	51.0	47.4	2.9	50.3
Total	-	82.0	70.8	3.3	74.1
Dumbarton Bridge					
Capital Outlay Support	-	56.0	35.3	14.7	50.0
Capital Outlay Support by BATA			6.0	-	6.0
Capital Outlay	-	92.7	67.6	4.4	72.0
Total	-	148.7	108.9	19.1	128.0
Miscellaneous Program Costs	30.0	30.0	25.5	4.5	30.0
Total Capital Outlay Support	1,463.2	1,803.9	1,687.6	166.2	1,853.8
Total Capital Outlay	6,321.8	6,949.2	6,582.7	406.4	6,989.1
Program Total ¹	7,785.0	8,753.1	8,270.3	572.6	8,842.9

(1). Funds allocated to project or contract for Capital Outlay and Support needs includes Capital Outlay Support total allocation for FY 06/07.

(2). BSA provided a distribution of program contingency in December 2004 based in Bechtel Infrastructure Corporation input.

This Column is subject to revision upon completion of Department's risk assessment update.

(3) Total Capital Outlay Support includes program indirect costs.

¹ Figures may not sum up to totals due to rounding effects.

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through December 31, 2012 (\$ Millions)

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (12/2012) e = c + d	Cost to Date (12/2012) f	Cost Forecast (12/2012) g	At- Completion Variance h = g - e
San Francisco-Oakland Bay Bridge East Span Replacement Project						
East Span - SAS Superstructure						
Capital Outlay Support	214.6	204.4	419.0	404.0	471.1	52.1
Capital Outlay Construction	1,753.7	293.1	2,046.8	1,749.1	2,050.6	3.8
Total	1,968.3	497.5	2,465.8	2,153.1	2,521.7	55.9
SAS W2 Foundations						
Capital Outlay Support	10.0	(0.8)	9.2	9.2	9.2	-
Capital Outlay Construction	26.4	0.1	26.5	26.5	26.5	-
Total	36.4	(0.7)	35.7	35.7	35.7	-
YBI South/South Detour						
Capital Outlay Support	29.4	58.3	87.7	87.8	87.7	-
Capital Outlay Construction	131.9	334.2	466.1	466.2	473.3	7.2
Total	161.3	392.5	553.8	554.0	561.0	7.2
East Span - Skyway						
Capital Outlay Support	197.0	(15.8)	181.2	181.2	181.2	-
Capital Outlay Construction	1,293.0	(55.8)	1,237.2	1,237.3	1,237.2	-
Total	1,490.0	(71.6)	1,418.4	1,418.5	1,418.4	-
East Span - SAS E2/T1 Foundations						
Capital Outlay Support	52.5	(24.1)	28.4	28.4	28.4	-
Capital Outlay Construction	313.5	(38.7)	274.8	274.8	278.6	3.8
Total	366.0	(62.8)	303.2	303.2	307.0	3.8
YBI Transition Structures (see notes below)						
Capital Outlay Support	78.7	27.7	106.4	85.6	115.0	8.6
Capital Outlay Construction	299.3	(3.9)	295.4	184.8	322.3	26.9
Total	378.0	23.8	401.8	270.4	437.3	35.5
* YBI- Transition Structures						
Capital Outlay Support			16.4	16.4	16.4	-
Capital Outlay Construction			-	-	-	-
Total			16.4	16.4	16.4	-
* YBI- Transition Structures Contract No. 1						
Capital Outlay Support			57.0	53.6	64.6	7.6
Capital Outlay Construction			199.7	184.8	234.6	34.9
Total			256.7	238.4	299.2	42.5
* YBI- Transition Structures Contract No. 2						
Capital Outlay Support			32.0	15.6	33.0	1.0
Capital Outlay Construction			92.4	-	84.4	(8.0)
Total			124.4	15.6	117.4	(7.0)
* YBI- Transition Structures Contract No. 3 Landscape						
Capital Outlay Support			1.0	-	1.0	-
Capital Outlay Construction			3.3	-	3.3	-
Total			4.3	-	4.3	-

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through December 31, 2012 (\$ Millions) Cont.

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (12/2012) e = c + d	Cost to Date (12/2012) f	Cost Forecast (12/2012) g	At- Completion Variance h = g - e
Oakland Touchdown (see notes below)						
Capital Outlay Support	74.4	38.5	112.9	97.4	124.1	11.2
Capital Outlay Construction	283.8	39.9	323.7	220.4	331.6	7.9
Total	358.2	78.4	436.6	317.8	455.7	19.1
* OTD Prior-to-Split Costs						
Capital Outlay Support			21.7	20.0	21.7	-
Capital Outlay Construction			-	-	-	4.4
Total			21.7	20.0	21.7	4.4
* OTD Submarine Cable(1)						
Capital Outlay Support			0.9	0.9	0.9	-
Capital Outlay Construction			5.7	5.7	9.6	3.9
Total			6.6	6.6	10.5	3.9
* OTD No. 1 (Westbound)						
Capital Outlay Support			51.3	51.2	51.3	-
Capital Outlay Construction			205.0	203.0	203.3	(1.7)
Total			256.3	254.2	254.6	(1.7)
* OTD No. 2 (Eastbound)						
Capital Outlay Support			22.5	18.2	35.6	13.1
Capital Outlay Construction			62.0	11.6	65.5	3.5
Total			84.5	29.8	101.1	16.6
* OTD Touchdown 2 Detour(2)						
Capital Outlay Support			15.0	6.3	13.1	(1.9)
Capital Outlay Construction			51.0	-	48.8	(2.2)
Total			66.0	6.3	61.9	(4.1)
* OTD Electrical Systems						
Capital Outlay Support			1.5	0.8	1.5	-
Capital Outlay Construction			-	-	4.4	4.4
Total			1.5	0.8	5.9	4.4
Existing Bridge Demolition						
Capital Outlay Support	79.7	(19.8)	59.9	3.6	44.7	(15.2)
Capital Outlay Construction	239.2	(0.1)	239.1	-	249.5	10.4
Total	318.9	(19.9)	299.0	3.6	294.2	(4.8)
* Cantilever Section						
Capital Outlay Support			-	-	16.8	
Capital Outlay Construction			-	-	57.6	
Total			-	-	74.4	
* 504/288 Sections						
Capital Outlay Support			-	3.6	13.9	
Capital Outlay Construction			-	-	85.3	
Total			-	3.6	99.2	
*Marine foundations						
Capital Outlay Support			-	-	14.0	
Capital Outlay Construction			-	-	106.6	
Total			-	-	120.6	
YBI/SAS Archeology						
Capital Outlay Support	1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction	1.1	-	1.1	1.1	1.1	-
Total	2.2	-	2.2	2.2	2.2	-

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through December 31, 2012 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (12/2012)	Cost to Date (12/2012)	Cost Forecast (12/2012)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
YBI - USCG Road Relocation						
Capital Outlay Support	3.0	(0.3)	2.7	2.7	3.0	0.3
Capital Outlay Construction	3.0	(0.2)	2.8	2.8	3.0	0.2
Total	6.0	(0.5)	5.5	5.5	6.0	0.5
YBI - Substation and Viaduct						
Capital Outlay Support	6.5	(0.1)	6.4	6.4	6.5	0.1
Capital Outlay Construction	11.6	(0.3)	11.3	11.3	11.6	0.3
Total	18.1	(0.4)	17.7	17.7	18.1	0.4
Oakland Geofill						
Capital Outlay Support	2.5	0.1	2.6	2.5	2.5	(0.1)
Capital Outlay Construction	8.2	-	8.2	8.2	8.2	-
Total	10.7	0.1	10.8	10.7	10.7	(0.1)
Pile Installation Demonstration Project						
Capital Outlay Support	1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction	9.3	(0.1)	9.2	9.3	9.3	-
Total	11.1	(0.1)	11.0	11.1	11.1	-
Stormwater Treatment Measures						
Capital Outlay Support	6.0	2.2	8.2	8.2	8.2	-
Capital Outlay Construction	15.0	3.3	18.3	16.8	18.3	-
Total	21.0	5.5	26.5	25.0	26.5	-
Right-of-Way and Environmental Mitigation						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay & Right-of-Way	72.4	-	72.4	51.7	80.4	8.0
Total	72.4	-	72.4	51.7	80.4	8.0
Sunk Cost - Existing East Span Retrofit						
Capital Outlay Support	39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction	30.8	-	30.8	30.8	30.8	-
Total	70.3	-	70.3	70.3	70.3	-
Other Capital Outlay Support						
Environmental Phase	97.7	0.1	97.8	97.8	97.7	(0.1)
Pre-Split Project Expenditures	44.9	-	44.9	44.9	44.9	-
Non-Project Specific Costs	20.0	(8.0)	12.0	3.2	12.0	-
Total	162.6	(7.9)	154.7	145.9	154.6	(0.1)
Subtotal Capital Outlay Support	959.3	262.3	1,221.6	1,105.3	1,278.6	57.0
Subtotal Capital Outlay Construction	4,492.2	571.5	5,063.7	4,291.1	5,132.3	68.6
Other Budgeted Capital	35.1	(32.8)	2.3	0.7	7.7	5.4
						-
Total SFOBB East Span Replacement Project	5,486.6	801.0	6,287.6	5,397.1	6,418.6	131.0

¹ Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (12/2012)	Cost to Date (12/2012)	Cost Forecast (12/2012)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project						
New Bridge						
Capital Outlay Support						
BATA Funding	84.9	7.2	92.1	92.0	92.1	-
Non-BATA Funding	-	0.1	0.1	0.1	0.1	-
Subtotal	84.9	7.3	92.2	92.1	92.2	-
Capital Outlay Construction			-			-
BATA Funding	661.9	94.6	756.5	753.7	756.5	-
Non-BATA Funding	10.1	-	10.1	10.1	10.1	-
Subtotal	672.0	94.6	766.6	763.8	766.6	-
Total	756.9	101.9	858.8	855.9	858.8	-
I-680/I-780 Interchange Reconstruction						
Capital Outlay Support						
BATA Funding	24.9	5.2	30.1	30.1	30.1	-
Non-BATA Funding	1.4	5.2	6.6	6.3	6.6	-
Subtotal	26.3	10.4	36.7	36.4	36.7	-
Capital Outlay Construction						
BATA Funding	54.7	26.9	81.6	77.1	81.6	-
Non-BATA Funding	21.6	-	21.6	21.7	21.7	0.1
Subtotal	76.3	26.9	103.2	98.8	103.3	0.1
Total	102.6	37.3	139.9	135.2	140.0	0.1
I-680/Marina Vista Interchange Reconstruction						
Capital Outlay Support	18.3	1.9	20.2	20.2	20.2	-
Capital Outlay Construction	51.5	4.9	56.4	56.1	56.4	-
Total	69.8	6.8	76.6	76.3	76.6	-
New Toll Plaza and Administration Building						
Capital Outlay Support	11.9	3.8	15.7	15.7	15.7	-
Capital Outlay Construction	24.3	2.0	26.3	25.1	26.3	-
Total	36.2	5.8	42.0	40.8	42.0	-
Existing Bridge & Interchange Modifications						
Capital Outlay Support						
BATA Funding	4.3	13.7	18.0	18.0	18.0	-
Non-BATA Funding	-	0.9	0.9	0.8	0.9	-
Subtotal	4.3	14.6	18.9	18.8	18.9	-
Capital Outlay Construction						
BATA Funding	17.2	32.8	50.0	37.2	50.0	-
Non-BATA Funding	-	9.5	9.5	-	9.5	-
Subtotal	17.2	42.3	59.5	37.2	59.5	-
Total	21.5	56.9	78.4	56.0	78.4	-
Other Contracts						
Capital Outlay Support	11.4	(0.9)	10.5	9.7	10.5	-
Capital Outlay Construction	20.3	3.3	23.6	18.6	23.6	-
Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Total	52.1	2.3	54.4	45.3	54.4	-

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (12/2012)	Cost to Date (12/2012)	Cost Forecast (12/2012)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project continued...						
Subtotal BATA Capital Outlay Support	155.7	30.9	186.6	185.7	186.6	-
Subtotal BATA Capital Outlay Construction	829.9	164.5	994.4	967.8	994.4	-
Subtotal Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Subtotal Non-BATA Capital Outlay Support	1.4	6.2	7.6	7.2	7.6	-
Subtotal Non-BATA Capital Outlay Construction	31.7	9.5	41.2	31.8	41.3	0.1
Project Reserves	20.8	1.6	22.4	-	22.3	(0.1)
Total New Benicia-Martinez Bridge Project						
Notes:	1,059.9	212.6	1,272.5	1,209.5	1,272.5	-
	Includes EAs 00601_,00603_,00605_,00606_,00608_,00609_,0060A_,0060C_,0060E_,0060F_,0060G_,0060H_, and all Project Right-of-Way					
Carquinez Bridge Replacement Project						
New Bridge						
Capital Outlay Support	60.5	(0.3)	60.2	60.2	60.2	-
Capital Outlay Construction	253.3	2.7	256.0	255.9	256.0	-
Total	313.8	2.4	316.2	316.1	316.2	-
Crockett Interchange Reconstruction						
Capital Outlay Support	32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction	73.9	(1.9)	72.0	71.9	72.0	-
Total	105.9	(2.0)	103.9	103.8	103.9	-
Existing 1927 Bridge Demolition						
Capital Outlay Support	16.1	(0.3)	15.8	15.8	15.8	-
Capital Outlay Construction	35.2	-	35.2	35.1	35.2	-
Total	51.3	(0.3)	51.0	50.9	51.0	-
Other Contracts						
Capital Outlay Support	15.8	0.9	16.7	16.5	16.7	-
Capital Outlay Construction	18.8	(1.2)	17.6	16.5	17.6	-
Capital Outlay Right-of-Way	10.5	(0.1)	10.4	9.9	10.4	-
Total	45.1	(0.4)	44.7	42.9	44.7	-
Subtotal BATA Capital Outlay Support						
Subtotal BATA Capital Outlay Construction	124.4	0.2	124.6	124.4	124.6	-
Subtotal Capital Outlay Right-of-Way	381.2	(0.4)	380.8	379.4	380.8	-
Project Reserves	10.5	(0.1)	10.4	9.9	10.4	-
	12.1	(9.7)	2.4	-	2.4	-
Total Carquinez Bridge Replacement Project ¹						
	528.2	(10.0)	518.2	513.7	518.2	-
Notes						
	Other Contracts include EAs 01301_,01302_,01303_,01304_,01305_,01306_,01307_,01308_,01309_,0130A_,0130C_,0130D_,0130F_,0130G_,0130H_,0130J_,00453_,00493_,04700_,00607_,2A270_,and 29920_ and all Project Right-of-Way					

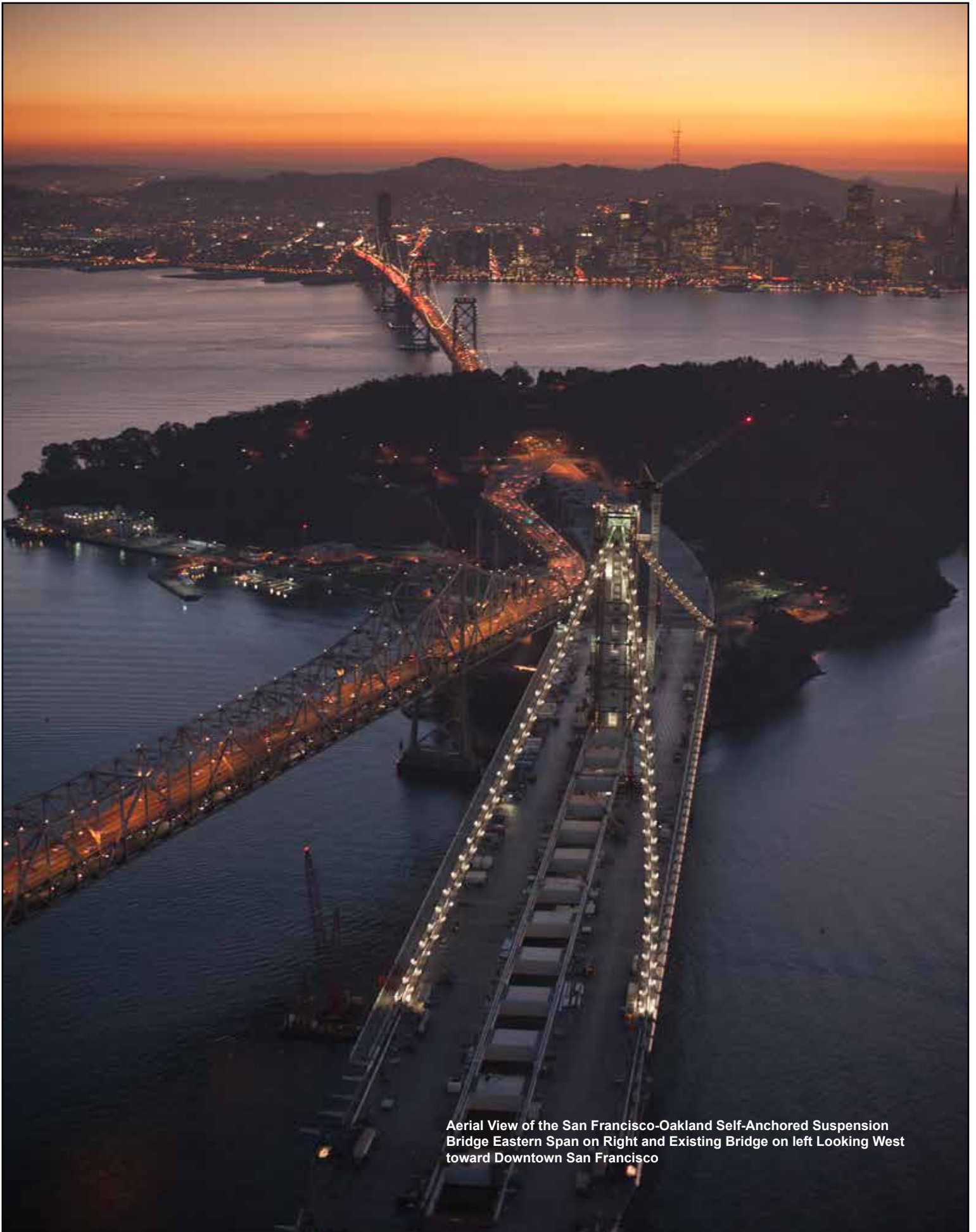
¹ Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (12/2012)	Cost to Date (12/2012)	Cost Forecast (12/2012)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation						
Capital Outlay Support						
BATA Funding	2.2	(0.8)	1.4	1.4	1.4	-
Non-BATA Funding	8.6	1.8	10.4	10.4	10.4	-
Subtotal	10.8	1.0	11.8	11.8	11.8	-
Capital Outlay Construction						
BATA Funding	40.2	(6.8)	33.4	33.3	33.4	-
Non-BATA Funding	51.1	-	51.1	51.1	51.1	-
Subtotal	91.3	(6.8)	84.5	84.4	84.5	-
Project Reserves	-	0.8	0.8	-	0.8	-
Total	102.1	(5.0)	97.1	96.2	97.1	-
Richmond-San Rafael Bridge Deck Overlay Rehabilitation						
Capital Outlay Support						
BATA Funding	4.0	(0.7)	3.3	3.3	3.3	-
Non-BATA Funding	4.0	(4.0)	-	-	-	-
Subtotal	8.0	(4.7)	3.3	3.3	3.3	-
Capital Outlay Construction	16.9	(0.6)	16.3	16.3	16.3	-
Project Reserves	0.1	0.3	0.4	-	0.4	-
Total	25.0	(5.0)	20.0	19.6	20.0	-
Richmond Parkway Project (RM 1 Share Only)						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	5.9	-	5.9	4.3	5.9	-
Total	5.9	-	5.9	4.3	5.9	-
San Mateo-Hayward Bridge Widening						
Capital Outlay Support	34.6	(0.5)	34.1	34.1	34.1	-
Capital Outlay Construction	180.2	(6.1)	174.1	174.1	174.1	-
Capital Outlay Right-of-Way	1.5	(0.9)	0.6	0.6	0.6	-
Project Reserves	1.5	(0.5)	1.0	-	1.0	-
Total	217.8	(8.0)	209.8	208.8	209.8	-
I-880/SR-92 Interchange Reconstruction						
Capital Outlay Support	28.8	35.8	64.6	62.2	64.6	-
Capital Outlay Construction						
BATA Funding	85.2	68.4	153.6	150.2	153.6	-
Non-BATA Funding	9.6	-	9.6	-	9.6	-
Subtotal	94.8	68.4	163.2	150.2	163.2	-
Capital Outlay Right-of-Way	9.9	7.3	17.2	14.7	17.2	-
Project Reserves	0.3	(0.3)	-	-	-	-
Total	133.8	111.2	245.0	227.1	245.0	-
Bayfront Expressway Widening						
Capital Outlay Support	8.6	(0.2)	8.4	8.4	8.4	-
Capital Outlay Construction	26.5	(1.5)	25.0	24.9	25.0	-
Capital Outlay Right-of-Way	0.2	-	0.2	0.2	0.2	-
Project Reserves	0.8	(0.3)	0.5	-	0.5	-
Total	36.1	(2.0)	34.1	33.5	34.1	-

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (12/2012)	Cost to Date (12/2012)	Cost Forecast (12/2012)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
US 101/University Avenue Interchange Modification						
Capital Outlay Support	3.8	-	3.8	3.7	3.8	-
Capital Outlay Construction	3.8	-	3.8	3.7	3.8	-
Total						
	358.3	64.7	423.0	419.5	423.0	-
Subtotal BATA Capital Outlay Support	1,569.8	217.5	1,787.3	1,754.0	1,787.3	-
Subtotal BATA Capital Outlay Construction	42.5	6.2	48.7	42.4	48.7	-
Subtotal Capital Outlay Right-of-Way	14.0	4.0	18.0	17.6	18.0	-
Subtotal Non-BATA Capital Outlay Support	92.4	9.5	101.9	82.9	102.0	0.1
Subtotal Non-BATA Capital Outlay Construction	35.6	(8.1)	27.5	-	27.4	(0.1)
Project Reserves	2,112.6	293.8	2,406.4	2,316.4	2,406.4	-
Total RM1 Program	2,112.6	293.8	2,406.4	2,316.4	2,406.4	-
Notes:						
1 Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRP Expenses for EA 0438U_ and 04157_						
2 San Mateo-Hayward Bridge Widening includes EAs 00305_,04501_,04503_,04504_,04504_,04505_,04506_,04507_,04508_,04509_,27740_,27790_,04860_						

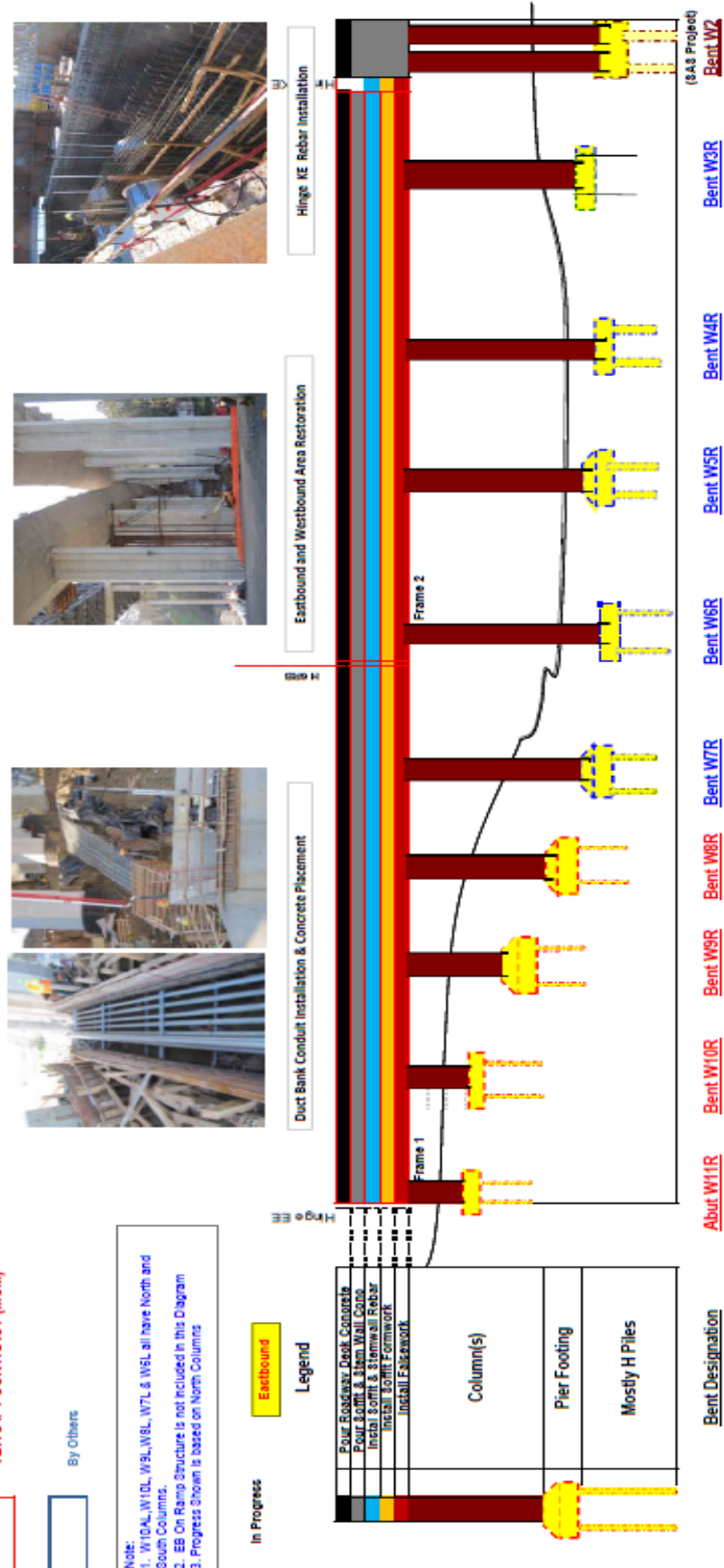
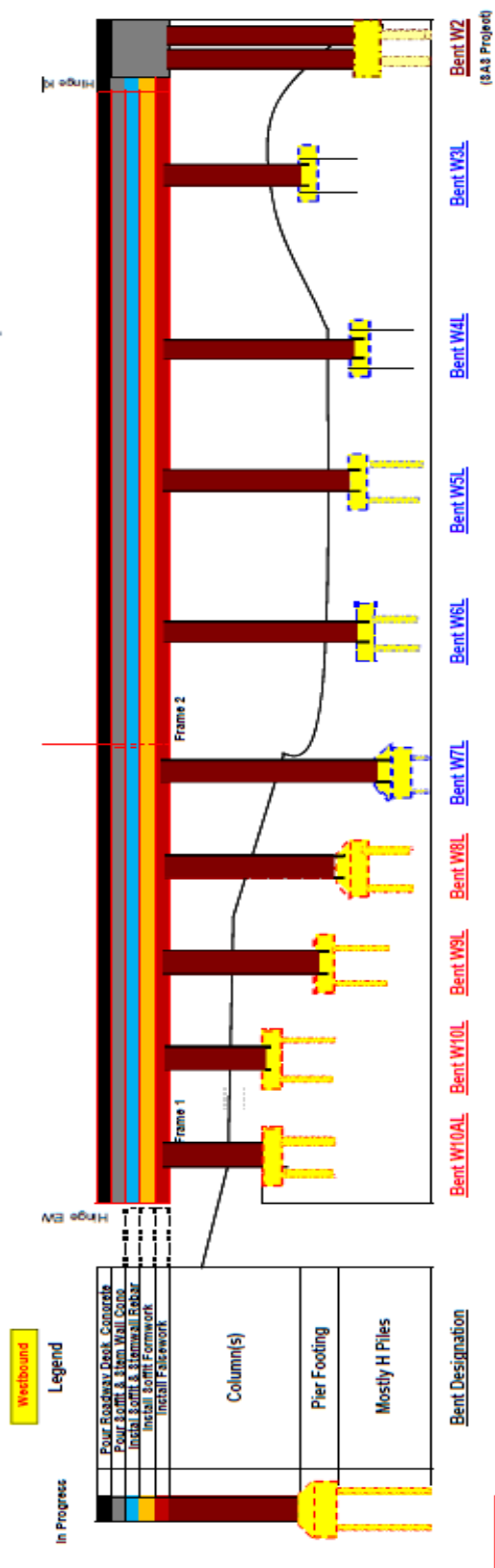


Aerial View of the San Francisco-Oakland Self-Anchored Suspension Bridge Eastern Span on Right and Existing Bridge on left Looking West toward Downtown San Francisco

Appendix D: Progress Diagrams

Yerba Buena Island Transition Structures

SFOBB SEISMIC RETROFIT PROJECT YBITS #1 PROGRESS DIAGRAM as of December 28, 2012

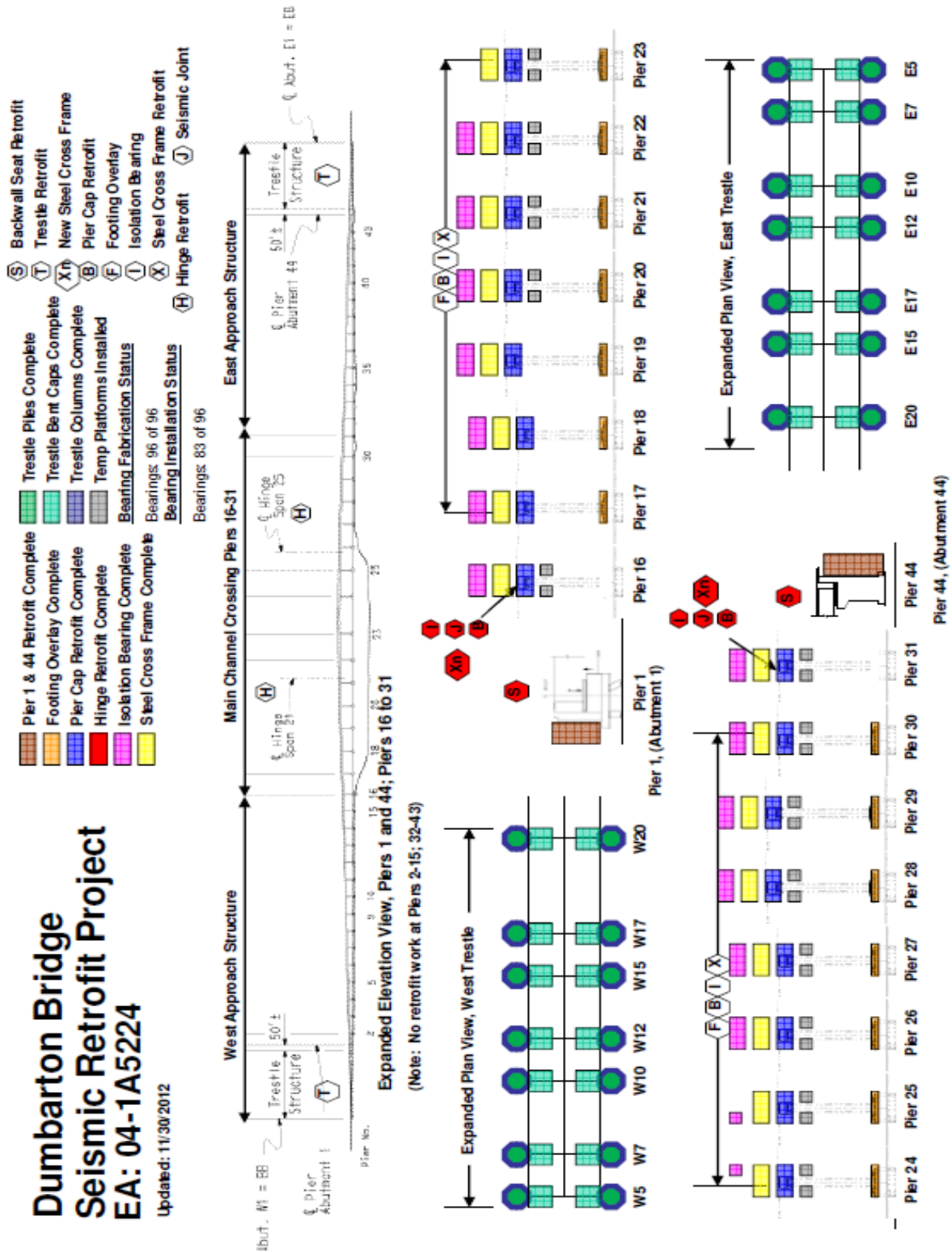


Appendix D: Progress Diagrams (cont.)

Dumbarton Bridge

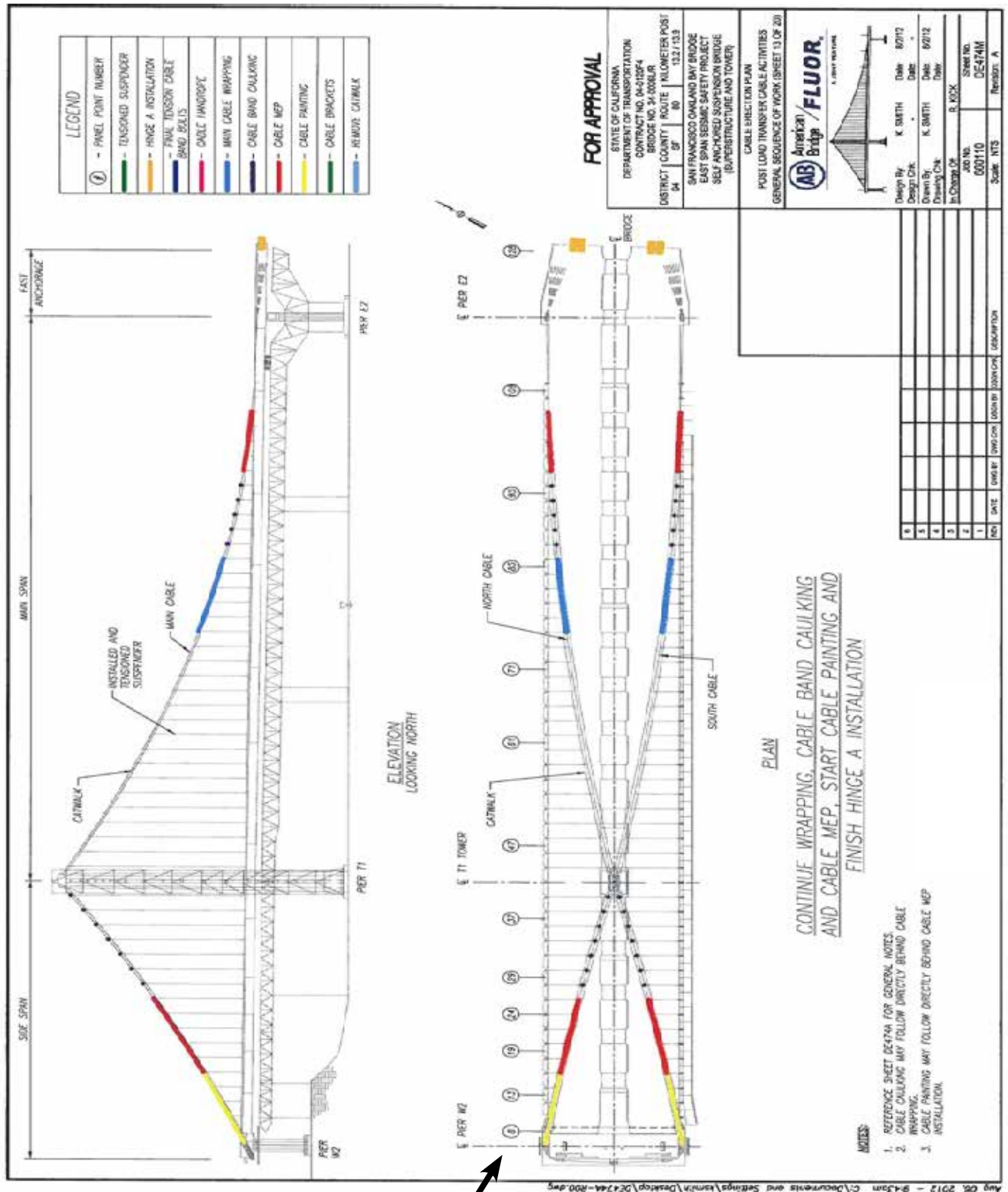
Dumbarton Bridge Seismic Retrofit Project EA: 04-1A5224

Updated: 11/30/2012

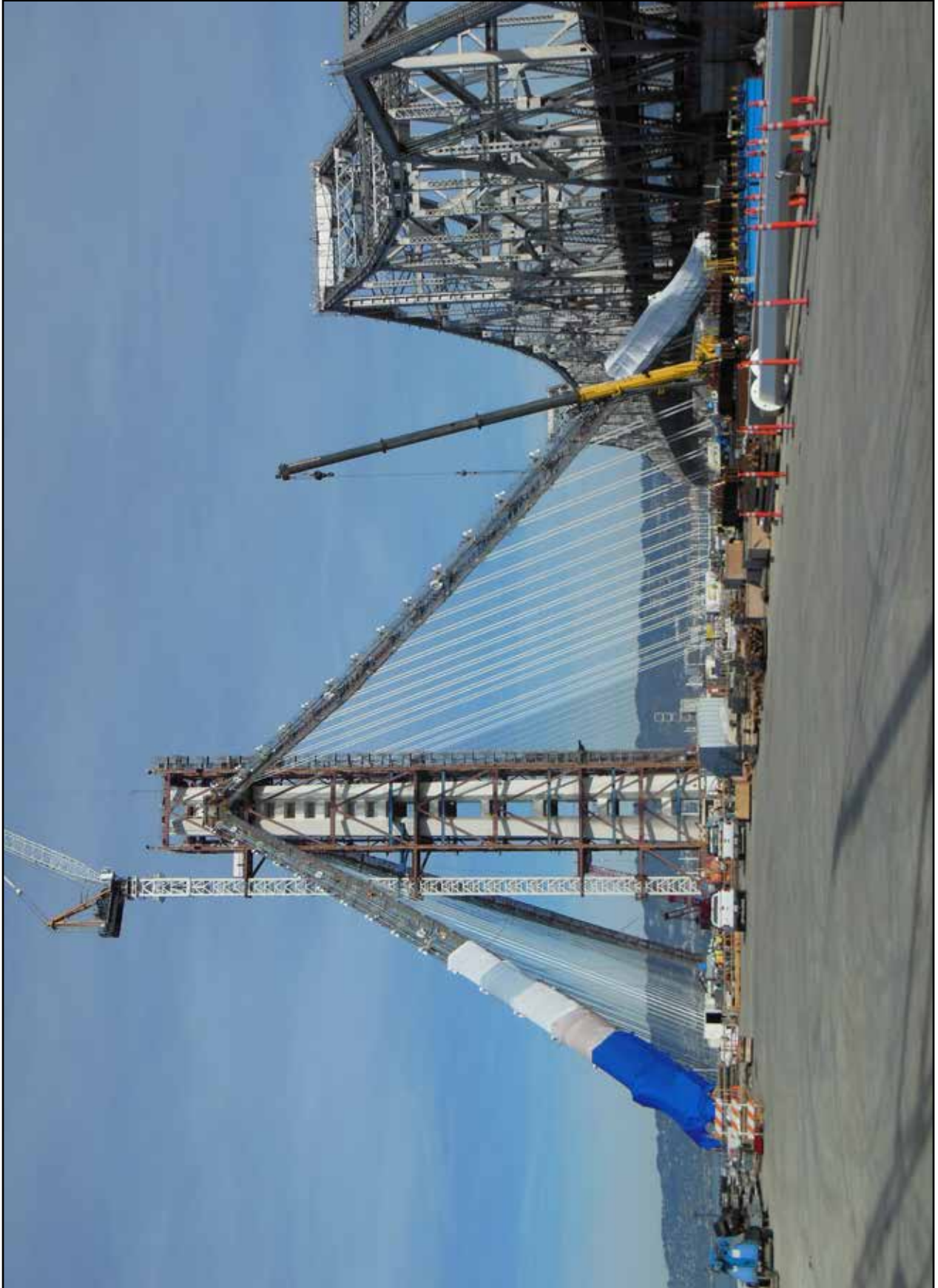


Appendix D: Progress Diagrams

SAS Late January Work Plan Activities



Page 63 Photograph Perspective



San Francisco-Oakland Self-Anchored Suspension Bridge Initial North and South Main Cable Backspan Painting Enclosure



The Self-Anchored Suspension Bridge Cable Wrapping Operations - Grinding the S wire Wrap Cadweld



Project Photos

Appendix E: Project Progress Photographs

Self-Anchored Suspension Bridge Field Work



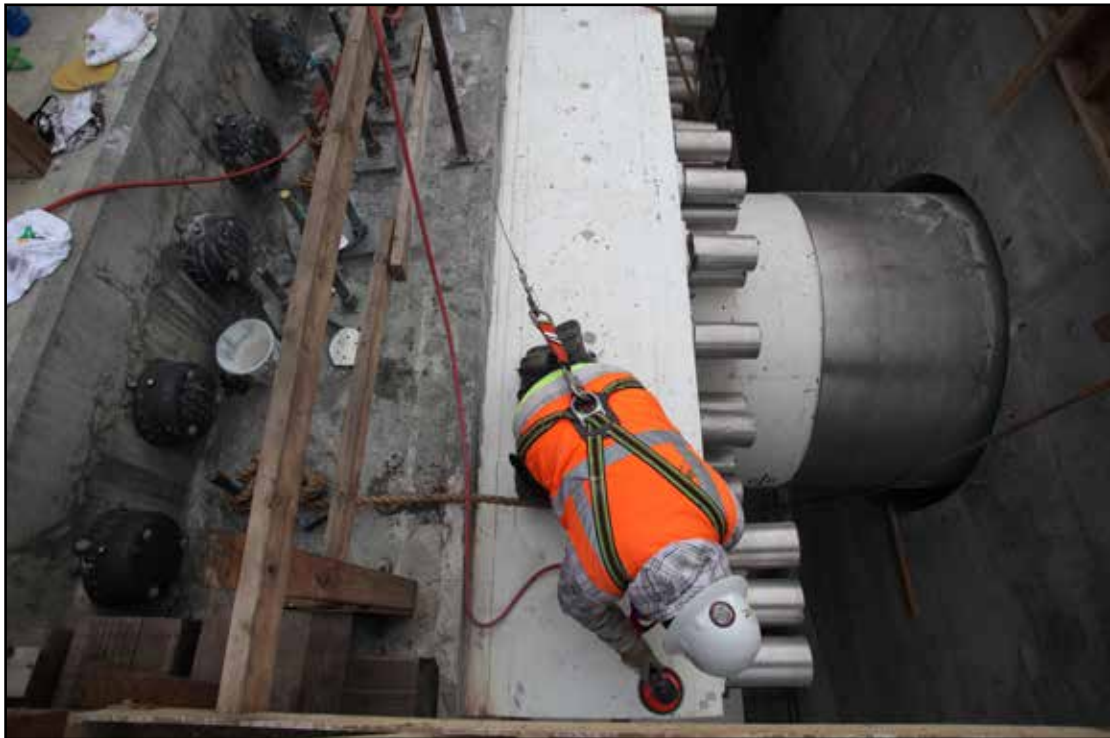
Self-Anchored Suspension Bridge Light Fixtures Installation



Self-Anchored Suspension Bridge Welding A Pipe Support at the Tower Head

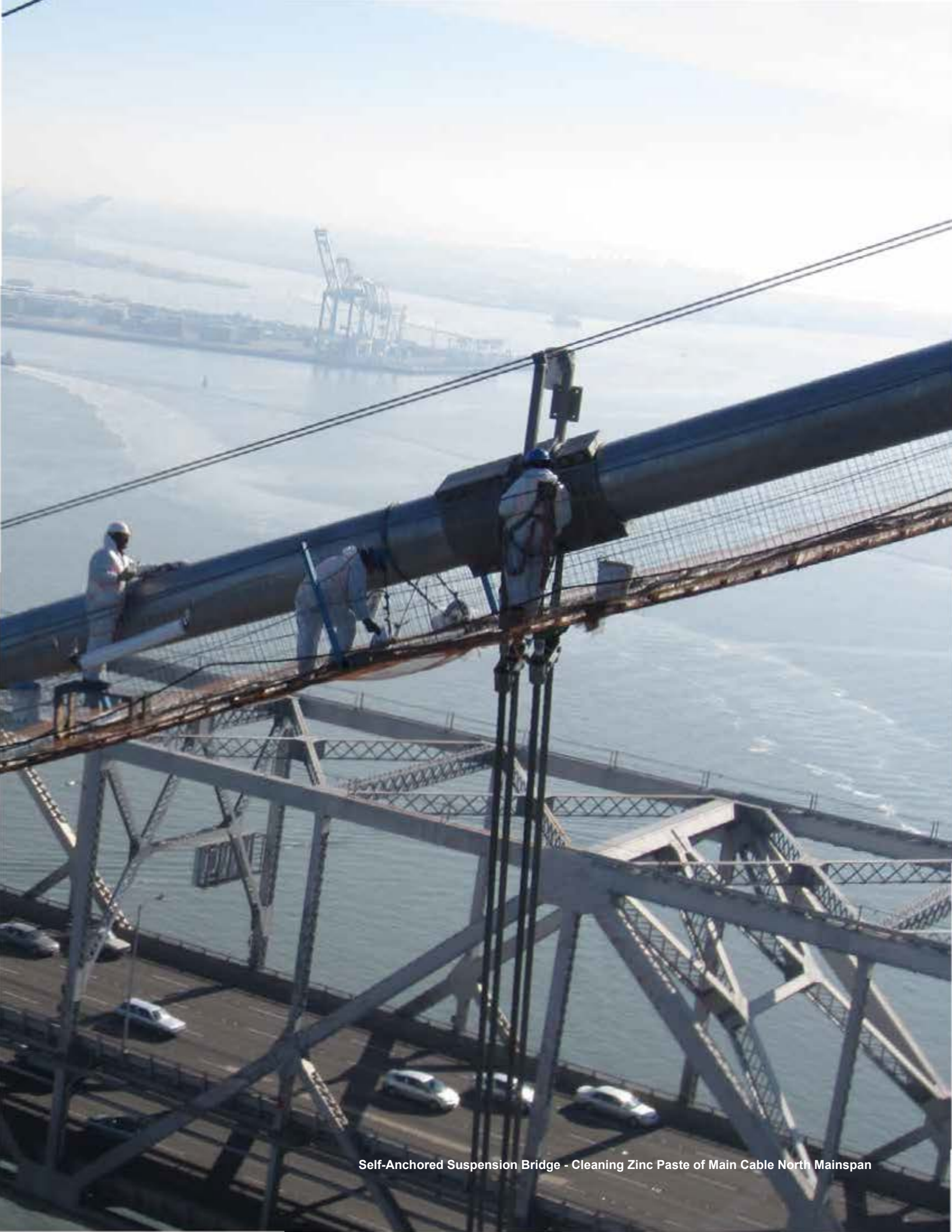


Self-Anchored Suspension Bridge Cable Band Bracket in Place at South Mainspan



Self-Anchored Suspension Bridge westbound Hinge K Installed



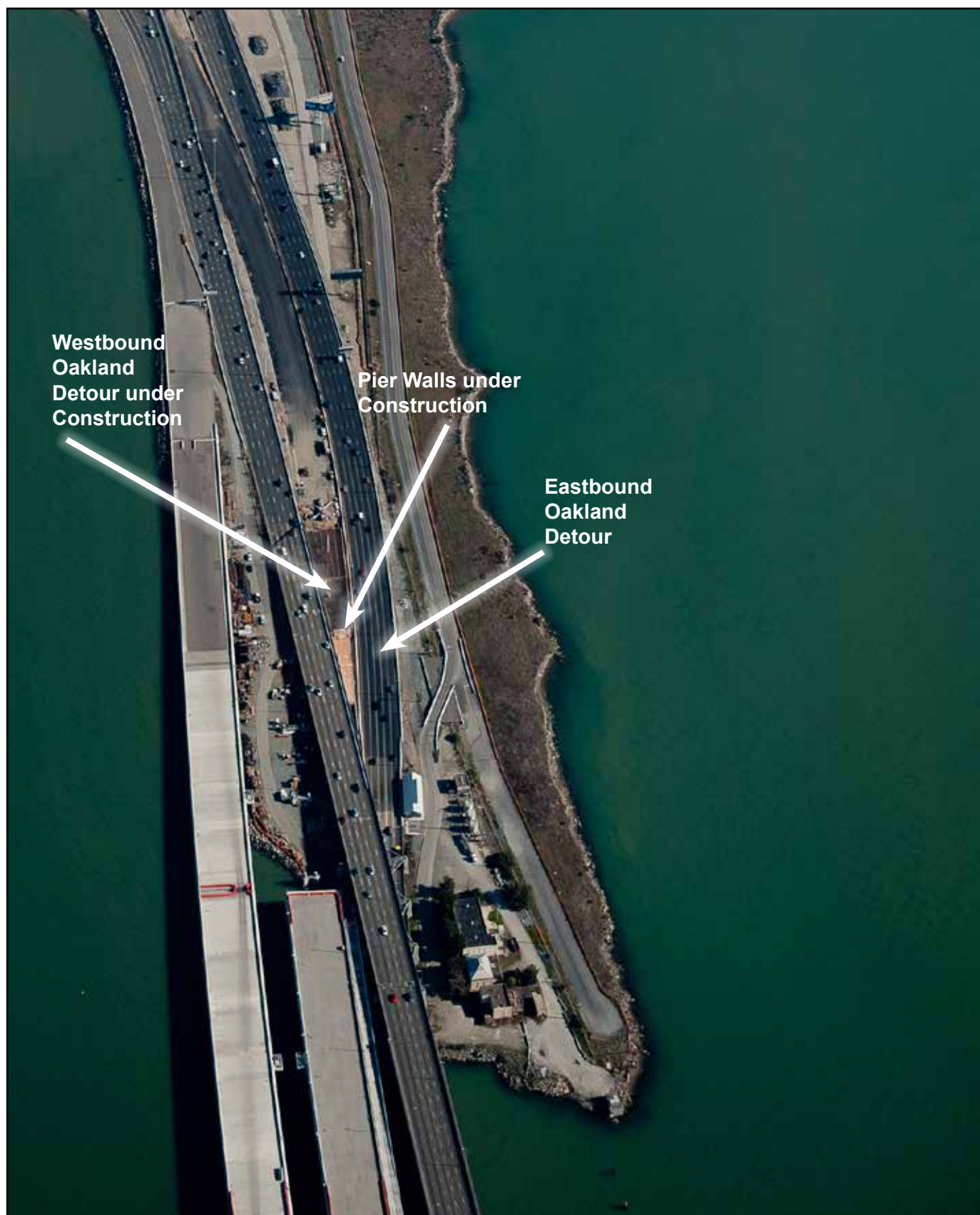


Self-Anchored Suspension Bridge - Cleaning Zinc Paste of Main Cable North Mainspan

Appendix E: Project Progress Photographs

Westbound Oakland Detour

Before Opening to Traffic



After Opening to Traffic



Appendix E: Project Progress Photographs

Yerba Buena Island Transition Structure #1 Westbound



YBITS # 1 Retaining Wall #50



YBITS # Eastbound Bike Path Support Installation



View of YBID and YBITS #1 Eastbound and Westbound Roadway Decks from the SAS Tower

Appendix E: Project Progress Photographs

Antioch Bridge



Antioch Bridge - Pier 41 Girders on Temporary Jacks prior to Installation of Isolation Bearings



Antioch Bridge - Welding of Jacking Stiffeners at Existing Girder Web

Appendix E: Project Progress Photographs

Dumbarton Bridge



Dumbarton Bridge - Ravenswood Pier Staging for Footing Overlay Work



Dumbarton Bridge - Pier 26 Footing Overlay - All Footing Overlay Completed Except Piers 23 & 24

Appendix F: Glossary of Terms

Glossary of Terms

AB 144/SB 66 BUDGET: The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005, and September 29, 2005, respectively.

AB 144/SB 66 PROJECT COMPLETE BASELINE: The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

APPROVED CHANGES: For cost, changes to the AB 144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

AT COMPLETION VARIANCE or VARIANCE (cost): The mathematical difference between the Cost Forecast and the Current Approved Budget.

BATA BUDGET: The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

BATA PROJECT COMPLETE BASELINE: The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

COST FORECAST: The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

COST TO DATE: The actual expenditures incurred by the program, project or contract as of the month and year shown.

CURRENT APPROVED BUDGET: The sum of the AB 144/SB 66 Budget or BATA Budget and Approved Changes.

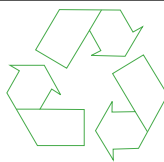
HINGE PIPE BEAMS: Pipes between roadway sections designed to move within their sleeves during expansion or contraction of the decks during minor events, such as changes in temperature. The beams are designed to absorb the energy of an earthquake by deforming in their middle or “fuse” section. Hinge pipe beams are also found at the western piers where the SAS connects to the YBITS (Hinge “K” pipe beams).

PROJECT COMPLETE CURRENT APPROVED SCHEDULE: The sum of the AB 144/SB 66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

PROJECT COMPLETE SCHEDULE FORECAST: The current projected date for the completion of the program, project, or contract.

SCHEDULE VARIANCE or VARIANCE (schedule): The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

% COMPLETE: % Complete is based on an evaluation of progress on the project, expenditures to date, and schedule.



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The information in this report is provided in accordance with California Government code Section 755. This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) on the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production is \$1,574,873.73.



The San Francisco-Oakland Bay Bridge Self-Anchored Suspension Bridge
Caulking Cable Band at south Mainspan



(Front Cover) The Self-Anchored Suspension Bridge Beginning the Placement of Blue Main Cable Painting Enclosures



TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans
Peter Lee, Senior Program Coordinator, BATA

RE: Agenda No. – 3b

Item – Progress Reports
FHWA 2012 Annual Update to the Financial Plan of the
San Francisco-Oakland Bay Bridge East Span Seismic
Safety Project

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:

TBPOC approval of the 2012 Annual Update to be submitted to the Federal Highway Administration (FHWA) is being requested. The annual update provides similar and consistent information based on the published TBPOC quarterly reports.

The PMT has reviewed the report and recommends it for TBPOC approval.

Attachment:

2012 Annual Update to the Financial Plan of the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project

2012 ANNUAL UPDATE TO THE FINANCE PLAN OF THE SAN FRANCISCO – OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT

This annual update is submitted by the California Department of Transportation (Caltrans) in accordance with the requirements of Section 1305 (b) of the Transportation Efficiency Act for the 21st Century, and Title 23 United States Code, Section 106 (h).

Introduction and Summary

The San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Safety Project (ESSSP) is part of the \$8.685 billion Toll Bridge Seismic Retrofit Program (TBSRP). The TBSRP was established to finance the retrofit or replacement of seven state-owned toll bridges. The funding plan for the TBSRP was established by Senate Bill (SB) 60 in 1997, Assembly Bill (AB) 1171 in 2001, and AB 144/SB 66 in 2005.

AB 144 established a comprehensive financial plan for the TBSRP, including the consolidation and financial management of all toll revenues collected on the state-owned toll bridges in the San Francisco Bay Area under the jurisdiction of the Bay Area Toll Authority (BATA). The bill provides \$630 million in additional state funds and authorizes BATA to increase tolls on the Bay Area state-owned toll bridges by at least an additional \$1.00 on January 1, 2007 to provide adequate funding to complete the TBSRP.

In addition, AB 144 and SB 66 significantly strengthen the program and project oversight activities for the TBSRP. The bills created the Toll Bridge Program Oversight Committee (TBPOC) to implement project oversight and control processes for the TBSRP. The TBPOC is comprised of the Director of the Caltrans, the Executive Director of BATA, and the Executive Director of the California Transportation Commission (CTC). The TBPOC's program oversight activities include review and approval of contract bid documents, review and resolution of project issues, evaluation and approval of contract change orders and claims, and the issuance of monthly and quarterly progress reports.

Under AB 144, the baseline budget to retrofit or replace the seven state-owned toll bridges was set at \$7.785 billion and a \$900 million program contingency, for a total program budget of \$8.685 billion. The bill reaffirms the self-anchored suspension design for the SFOBB East Span connector. The budgeted total program costs and the funding sources remain unchanged from AB 144.

In January 2010, the seismic retrofit of the Antioch and Dumbarton bridges were added to the Toll Bridge Seismic Retrofit Program per AB 1175. Based on AB 1175, the budget for the seismic retrofit of these two bridges is \$750 million. The total budget for AB 1171/AB 144/AB 1175 is \$9.435 billion. See *Table 1 – Toll Bridge Seismic Retrofit Program Financial Status – Program Budget*.

Program Budget

AB 1171/AB 144/AB 1175 established a funding level of \$9.435 billion for the TBSRP. The entire program is financed through a combination of toll revenues, federal, state and local funds. See *Table 1 - Toll Bridge Seismic Retrofit Program Financial Status –Program Budget*.

Table 1. Toll Bridge Seismic Retrofit Program Financial Status - Program Budget

As of September 30, 2012 (\$ Millions)

	Budgeted	Funding Available & Contributions
Financing		
Seismic Surcharge Revenue AB 1171	\$2,282	\$2,282.0
Seismic Surcharge Revenue AB 144	\$2,150	\$2,150.0
Seismic Surcharge Revenue AB 1175 ⁽⁵⁾	\$750	\$750.0
BATA Consolidation	\$820	\$820.0
Subtotal - Financing	\$6,002	\$6,002.0
Contributions		
Proposition 192	\$790	\$789.0
San Diego Coronado Toll Bridge Revenue Fund	\$33	\$33.0
Vincent Thomas Bridge	\$15	\$6.9
State Highway Account ⁽¹⁾⁽²⁾	\$745	\$745.0
Public Transportation Account ⁽¹⁾⁽³⁾	\$130	\$130.0
ITIP/SHOP/Federal Contingency	\$448	\$300.0
Federal Highway Bridge Replacement and Rehabilitation (HBRR)	\$642	\$642.0
SHA - East Span Demolition	\$300	\$0.0
SHA - "Efficiency Savings" ⁽⁴⁾	\$130	\$113.0
Redirect Spillover	\$125	\$125.0
Motor Vehicle Account	\$75	\$75.0
Subtotal - Contributions	\$3,433	\$2,958.9
Total Funding	\$9,435	\$8,960.9
Allocated to Date		\$7,800.7
Remaining Unallocated		\$1,160.2
Expenditures⁽⁶⁾		
Capital Outlay		\$6,033.4
State Operations		\$1,626.5
Antioch and Dumbarton Expenditures by BATA		\$12.2
Total Expenditures		\$7,672.1
Encumbrances		
Capital Outlay		\$98.7
State Operations		\$29.8
Total Encumbrances		\$128.6
Total Expenditures and Encumbrances		\$7,800.7

⁽¹⁾ The California Transportation Commission adopted a new schedule and changed the PTA/SHA split on December 15, 2005.

⁽²⁾ To date, \$645 million has been transferred from the SHA to the TBSRP, including the full \$290 million transfer scheduled by the CTC to occur in 2005-06. An additional \$100 million has been expended directly from the account.

⁽³⁾ To date, \$130 million has been transferred from the PTA to the TBSRP, including the full amount of all transfers scheduled by the CTC.

⁽⁴⁾ To date, \$113 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" identified under AB 144. Approximately \$17 million remains to be distributed as scheduled by the CTC.

⁽⁵⁾ As of January 1, 2010, seismic retrofitting of Antioch and Dumbarton Bridges became part of the Toll Bridge Seismic Retrofit Program with the passage of AB 1175.

Of the \$9.435 billion budgeted for the TBSRP, \$7.3 billion has been allocated as of September 30, 2012. Through September 2005, \$789 million provided by Proposition 192 has been allocated by the CTC. The final \$1 million from the budgeted Proposition 192 contribution will become available to the TBSRP upon allocation by CTC. Caltrans plans to request the final \$1 million Proposition 192 allocation at a future CTC meeting. For contributions from Vincent Thomas Bridge (VTB), the remaining \$8.1 million budgeted contribution is not available. When funds from the VTB account were transferred to the TBSRP, the VTB account was short \$8.1 million. Therefore, the TBSRP has an \$8.1 million shortfall. The schedule to transfer ITIP/SHOPP/Federal Contingency, the SHA – East Span Demolition, and the SHA – Efficient Savings are shown in *Table 2 - Schedule of Contributions to the Toll Bridge Seismic Retrofit Program*.

The schedule as shown in *Table 2 - Schedule of Contributions to the Toll Bridge Seismic Retrofit Program* was adopted by CTC in December 2005 for the transfer of funds to pledge state fund contribution to the financing of the TBSRP per BATA's adopted finance plan.

Table 2 - Schedule of Contributions to the Toll Bridge Seismic Retrofit Program (\$ in Millions)

Source	Description	2005 - 06 (Actual)	2006 - 07 (Actual)	2007 - 08 (Actual)	2008 - 09 (Actual)	2009 - 10 (Actual)	2010 - 11 (Actual)	2011 - 12 (Actual)	2012 - 13	2013 - 14	Total
AB 1171	SHA	290									290
	PTA	80	40								120
	Highway Bridge Replacement and Rehabilitation (HBRR)	100	100	100	42						342
	Contingency				1	99	100	100	148		448
AB 144	SHA*	2	8				53	50	17		130
	Motor Vehicle Account (MVA)	75									75
	Spillover		125								125
	SHA**									300	300
		547	273	100	43	99	153	150	165	300	1830

* Caltrans Efficiency Savings

** SFOBB East Span Demolition Cost

Program Financing and Cash Flow Projections

AB 144 consolidated the administration of all toll revenues collected on the state-owned Bay Area toll bridges and financing of the TBSRP under the jurisdiction of the BATA. BATA has direct programmatic responsibilities for the administration of all toll revenues collected on the state-owned bridges in the Bay Area and responsibilities for financial management of the TBSRP, including:

- Administrative responsibility for collection and accounting of all toll revenues.
- Authorization to increase tolls on the state-owned bridges by \$1.00, effective no sooner than January 1, 2007.
- Project level toll setting authority as necessary to cover additional cost increases beyond the funded \$900 million program contingency in order to complete the toll bridge seismic retrofit program.
- Assumption of funding all of the roadway and bridge structure maintenance from Caltrans once bridge seismic retrofit projects are completed.

In accordance with its responsibilities provided under the law, in September 2005, BATA adopted a finance plan for the TBSRP. The major components of the finance plan include:

- Issuing \$6.2 billion in debt, including defeasance of \$1.5 billion in outstanding State Infrastructure Bank (I-Bank) bonds and commercial paper;
- Increasing tolls on the state-owned bridges by \$1.00 (from \$3.00 to \$4.00 for two-axle vehicles), effective January 1, 2007;
- Securing the maximum amount of state funding early in the construction schedule to most efficiently use toll funds (see discussion below); and,
- Locking in historically low interest rates to the extent possible in order to improve the chances that the entire toll program construction and the operations and maintenance can be delivered within the \$4.00 auto toll level.

In September 2005, BATA approved a Finance Plan for the TBSRP and other toll bridge improvement programs dependent on toll revenues from the state-owned bridges. The finance plan calls for \$6.2 billion in new debt issuances, including defeasance of the existing outstanding I-Bank bonds. Consistent with the finance plan, in December 2005, BATA approved the issuance of up to \$1.0 billion of 2006 toll bridge revenue bonds. The bond issuance will provide adequate cash flow to fund the SAS contract for the ESSSP, which was awarded on May 3, 2006.

Furthermore, in March 2006, BATA approved the issuance of \$1.3 billion in bonds to defease the I-Bank bonds approved in October 2005. Additionally, pursuant to the law, BATA held two public hearings, one in October and one in November 2005, to receive public testimony regarding the proposed \$1.00 seismic surcharge toll increase beginning on January 1, 2007 on the state-owned toll bridges in the Bay Area. BATA approved the toll increase on January 25, 2006.

Furthermore, SB 66, enacted on September 29, 2005, appropriates \$75 million of specified Motor Vehicle Account funds and \$125 million of other specified state funds for state-owned toll bridges in the Bay Area. These funds have already been transferred to the Toll Bridge Seismic Retrofit Account.

Furthermore, AB 1175, enacted on January 1, 2010, added the seismic retrofit of the Antioch and Dumbarton bridges to the TBSRP. BATA has taken action to raise tolls on the state-owned Bay Area toll bridges to fund these projects. The toll increases went into effect in the summer of 2010. These increases include tolls for carpoolers and congestion pricing on the Bay Bridge. The total budget for the seismic retrofit of these two bridges per AB 1175 is \$750 million.

The following pro forma financial statement projects the financial operations and results for BATA for fiscal years 2013-2020. See *Table 3 - BATA Pro Forma Financial Projections*.

Table 3. - Bay Area Toll Authority Pro Forma Financial Projections

(\$ in Thousand)

Updated as of November 2012

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Operating Revenue								
Toll Revenue	\$ 647,557	\$ 650,795	\$ 654,049	\$ 657,319	\$ 660,606	\$ 663,909	\$ 667,229	\$ 670,565
Interest Income	16,044	40,829	38,962	36,948	35,603	35,291	35,719	36,104
Total Operating Revenue	\$ 663,601	\$ 691,624	\$ 693,011	\$ 694,267	\$ 696,209	\$ 699,200	\$ 702,948	\$ 706,669
Operating Expenses								
Other Operating Expenses*	\$ (46,033)	\$ (46,263)	\$ (46,494)	\$ (46,727)	\$ (46,727)	\$ (46,727)	\$ (46,727)	\$ (46,727)
Toll Operating Expenses	(76,366)	(77,927)	(79,529)	(88,449)	(90,357)	(92,316)	(94,328)	(96,396)
Total Operating Expenses	\$ (122,399)	\$ (124,190)	\$ (126,023)	\$ (135,176)	\$ (137,084)	\$ (139,043)	\$ (141,055)	\$ (143,123)
Net Before Debt Service	\$ 541,202	\$ 567,434	\$ 566,988	\$ 559,091	\$ 559,125	\$ 560,157	\$ 561,893	\$ 563,546
Debt Service	(390,867)	(428,319)	(462,142)	(468,717)	(464,001)	(467,461)	(468,074)	(482,254)
Net Operating Revenue	\$ 150,335	\$ 139,115	\$ 104,846	\$ 90,374	\$ 95,124	\$ 92,696	\$ 93,819	\$ 81,292
State Contribution (AB144/SB66)								
CONTINGENCY **	\$ 148,000			\$ -	\$ -	\$ -	\$ -	\$ -
EFFICIENCY SAVINGS**	\$ 17,000							
HBRR **								
Total State Contribution	\$ 165,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Proceeds	1,839,267	450,000	-	-	-	-	-	-
Total Non Operating Revenue	\$ 2,004,267	\$ 450,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total TBSRP Expenses	\$ (646,658)	\$ (410,058)	\$ (251,734)	\$ (151,800)	\$ (76,450)	\$ -	\$ -	\$ -
Beginning Balance	\$ 2,410,477	\$ 1,915,022	\$ 1,753,328	\$ 1,428,181	\$ 1,206,459	\$ 1,064,573	\$ 1,122,079	\$ 1,180,423
Total Net Income	1,507,944	179,057	(146,888)	(61,426)	18,674	92,696	93,819	81,292
Misc Transfers/ Costs	(2,003,399)	(340,751)	(178,256)	(160,296)	(160,560)	(35,190)	(35,475)	(35,770)
Ending Fund Balance	\$ 1,915,022	\$ 1,753,328	\$ 1,428,184	\$ 1,206,459	\$ 1,064,573	\$ 1,122,079	\$ 1,180,423	\$ 1,225,945

Base Assumptions:**Revenue Assumptions**

Bay Bridge flat in FY 2013 then .50% per year until 43.3 million vehicle cap, then flat
 All Other Bridges flat in FY 2013 then .50% per year growth

Interest Earnings Assumptions

Fund Balance Earnings 0.735% short term; 0.735 %, 3.459% long term

Floating Rate Bonds

.74%; support costs 1.0%; basis cost 0.16%

Expenses

Operating and Maintenance grow at 3% from 2009 levels

*MTC to BATA transfers

** CTC adopted pmt schedule

Contingency

HBRR

Efficiency Savings

Project Description

The SFOBB ESSSP will be seismically retrofitted through the complete replacement of the existing span. The project includes construction of the Skyway portion of the bridge, which consists of two parallel concrete structures, each approximately 1.3 miles in length; an SAS bridge consisting of a 510-foot tower supporting a bridge deck connecting the Skyway to Yerba Buena Island Transition Structures (YBITS) on YBI and on the east end of the bridge connecting the bridge to the toll plaza area, and the demolition of the existing east span after the new bridge is completed.

The SFOBB ESSSP now consists of 21 contracts. Construction of the Oakland Touchdown (OTD) Approach Structures and the YBITS has been split into multiple contracts to facilitate construction flow and to accelerate some elements of work off the critical path for the completion of the new east span.

Current Status

The current 21 contracts for SFOBB ESSSP are identified below:

Fourteen contracts are complete:

- Interim Retrofit (Existing Bridge)
- East Span Retrofit (Existing Bridge)
- Pile Installation Demonstration
- OTD Geofill
- YBI Archaeology
- United States Coast Guard (USCG) Road Relocation on YBI
- SAS Land Foundations (W2)
- YBI Electrical Substation
- OTD Submarine Cable
- Skyway
- SAS Marine Foundations (E2/T1)
- Stormwater Treatment Measures
- OTD Contract 1
- South/South Detour

Three contracts are under construction:

- SAS (88% complete as of September 2012)
- YBITS 1 (65% complete as of September 2012)
- OTD Contract 2 (25% complete as of September 2012)

One contract is being advertised:

- YBITS No.2

Three contracts are in design:

- OTD Portions of the Corridor Electrical Contract: This scope will be included within other contracts within the east span corridor.
- YBITS No.3 Landscape contract
- Existing Bridge Demolition

Project Timeline/Implementation Plan

As of September 30, 2012, it is anticipated that the new SFOBB East Span will be open to traffic by 2013. The opening of the new WB and EB lanes of the SFOBB ESSSP involves three segments: YBITS, SAS, and OTD. These three segments are being built and administered by three separate contracts with different construction completion dates. Construction activities on YBITS 2 and OTD No. 2 contracts will continue beyond the opening of the new East Span. For the YBITS 2 contract, these construction activities are to build the new EB on-ramp to Route 80, and to restore the local roads on YBI that are impacted by the construction of the new East Span. For the OTD No. 2 contract, these construction activities are to remove the EB Route 80 Detour, to construct the remaining bike path, construct Caltrans Maintenance road, and landscape the OTD area. See *Table 4 – SFOBB ESSSP Baseline and Projected Schedule Summary*.

The demolition of the existing East Span is scheduled to be completed in 2015, approximately two years after the new East Span is open to traffic; thereby, the delivery of the TBSRP.

Table 4 - SFOBB ESSSP Baseline and Projected Schedule Summary.

Contract	AB 144/SB 66 Baseline Project Completion Date	Approved Changes (Months)	Current Approved Schedule	3rd Quarter 2012 Forecast Project Completion date	Variance (Months)
Skyway	April 2007	8	December 2007	December 2007	
SAS Marine Foundation	June 2008	(5)	January 2008	January 2008	
SAS Superstructure	March 2012	29	August 2014	August 2014	
YBI Detour	July 2007	39	October 2010	October 2010	
YBI Transition Structures (YBITS)	November 2013	27	February 2016	February 2016	
YBITS 1			December 2013	December 2013	
YBITS 2			February 2016	February 2016	
Oakland Touchdown	November 2013	10	September 2014	September 2014	
OTD1			June 2010	June 2010	
OTD 2			September 2014	September 2014	
Submarine Cable			January 2008	January 2008	
Existing Bridge Demolition	September 2014	15	December 2015	March 2017	15
Stormwater Treatment Measures	March 2008		March 2008	March 2008	
Westbound Open	September 2011	27	December 2013	September 2013	(3)
Eastbound Open	September 2012	15	December 2013	September 2013	(3)

For additional information regarding the Implementation Plan, see *Attachment 1 - San Francisco Bay Area, Toll Bridge Seismic Retrofit and Regional Measure 1 Programs – 2012 Third Quarter Project Progress and Financial Update*.

Cost Estimate

TBSRP Reporting

The Department, together with the TBPOC, uses three primary measures to monitor and report the financial status of the SFOBB ESSSP: the Baseline Budget established by California AB 144 of 2005, the current TBPOC Approved Budget, and the current Forecast Cost.

Baseline Budget

The budget established when AB 144 became law in July 2005 was the baseline budget.

Forecast Cost

The TBSRP forecast cost at completion depends on the quality of plans, contractor's performances, construction administration and effectiveness of implementing risk mitigation measures. Consequently, the Department has undertaken a probabilistic assessment of the expected program cost at completion. Quantitative cost risk analyses associated with TBSRP Capital Outlay (CO) and Capital Outlay Support (COS) are reported in the Quarterly Risk Management Report (QRM) and considered in the TBPOC's cost forecasts.

Cost History

The AB 144/SB 66 baseline budget for the SFOBB ESSSP was \$5.487 billion with \$959.3 million in COS and \$4.527 billion in CO. As of this report, the TBPOC approved budget changes to some of the SFOBB ESSSP contracts. The TBPOC current approved budget was \$6.288 billion, an increase of \$801 million from the AB 144/SB 66 baseline budget. The Third Quarter 2012 forecast of the SFOBB ESSSP was \$6.385 billion. The increase will be funded by redirected project savings from the Richmond-San Rafael Bridge, savings from other completed contracts within the East Span, and from the program contingency. Currently, the TBPOC approved budget for the Toll Bridge Program is \$9.082 billion which includes \$397 million from AB 1175. See *Table 5 - Toll Bridge Seismic Retrofit Program, Cost History*.

Table 5 - Toll Bridge Seismic Retrofit Program, Cost History (\$ in Millions)

Contract	AB 144/ SB 66 Budget	Approved Changes	Current Approved Budget	3rd Quarter 2012 Forecast	Variance
a	b	c	d = b + c	f	g = f - d
Completed Projects					
Benicia-Martinez	177.8	0.0	177.8	177.8	0.0
Carquinez	114.2	0.0	114.2	114.2	0.0
San Mateo-Hayward	163.5	-0.1	163.4	163.4	0.0
Vincent Thomas	58.5	-0.1	58.4	58.4	0.0
San Diego-Coronado	103.5	-0.9	102.6	102.6	0.0
SFOBB West Span	307.9	-5.7	302.2	302.2	0.0
Richmond-San Rafael	914.0	-97.5	816.5	816.5	0.0
SFOBB West Approach	429.0	40.7	469.7	457.1	-12.6
Ongoing Projects					
Antioch		82.0	82.0	74.8	-7.2
Dumbarton		148.7	148.7	127.9	-20.8
SFOBB East Span	5,486.6	801.0	6,287.6	6,385.1	97.5
Capital Outlay Support	959.3	262.2	1,221.5	1,284.3	62.8
Capital Outlay	4,527.3	538.8	5,066.1	5,100.8	34.7
Skyway	1,293.0	-55.8	1,237.2	1,237.2	0.0
SAS Superstructure	1,753.7	293.1	2,046.8	2,047.2	0.4
SAS E2/T1 Foundations	313.5	-38.7	274.8	278.6	3.8
YBI South/South Detour	131.9	334.2	466.1	473.3	7.2
YBI Structures	299.3	-37.3	262.0	309.6	47.6
YBITS 1			199.7	225.8	26.1
YBITS 2			59.0	80.5	21.5
YBITS 3			3.3	3.3	0.0
Oakland Touchdown	283.8	43.8	327.6	326.6	-1.0
OTD Submarine Cable			9.6	9.6	0.0
OTD Westbound			205.0	203.3	-1.7
OTD Eastbound			62.0	60.5	-1.5
OTD2 Detour			51.0	48.8	-2.2
OTD Electrical Systems				4.4	4.4
Existing Bridge Demolition	239.2	-0.1	239.1	231.4	-7.7
Stormwater Treatment Measures	15.0	3.3	18.3	18.3	0.0
East Span Completed Projects	90.4	-0.4	90.0	90.5	0.5
Right-of-Way and Environmental Mitigation	72.4	0.0	72.4	80.4	8.0
Other Budgeted Capital	35.1	-3.3	31.8	7.7	-24.1
Miscellaneous Program Costs	30.0	0.0	30.0	30.0	0.0
Subtotal TBSRP (CO and COS)	7,785.0	968.1	8,753.1	8,810.0	56.9
Net Programmatic Risks				87.1	87.1
Program Contingency	900.0	-571.1	328.9	184.9	-144.0
TOTAL	8,685.0	397.0	9,082.0	9,082.0	0.0

Note: Details may not sum to totals due to rounding effects.

Summary of Significant Cost Change

The TBSRP Quarterly Report includes a discussion of the status of TBSRP projects and financial information consisting of baseline costs and forecast costs. The TBSRP Quarterly Report currently includes a discussion of risks and the adequacy of Program Contingency provided by Risk Management.

Caltrans continuously evaluates project and contract cost forecasts. The forecast as of September 30, 2012, the AB 144/SB 66 baseline budget and the TBPOC approved budget are shown in *Table 5 - Toll Bridge Seismic Retrofit Program, Cost History*.

The significant cost changes since AB 144/SB 66 became law are:

- Since construction of the YBITS 1 contract began in 2009, the TBPOC approved a series of Contract Change Orders (CCO) for this contract. The TBPOC current approved CO budget was \$199.7 million, an increase of \$55.7 million above the original budget of \$144 million.
- To mitigate any potential schedule risk, it was proposed that the OTD2 Detour be built in advance (in 2011) rather than have it built later under the OTD2 contract. In the first quarter of 2011, the TBPOC approved the budget to advance the construction of the OTD2 Detour. The approved CO budget for the OTD2 Detour is \$51 million and the approved COS budget is \$15 million.
- In the third quarter of 2010, the TBPOC approved a revised CO budget for the SAS. The additional \$293 million will facilitate the execution of significant change orders to resolve outstanding contract issues and to provide incentives for accelerating the opening of the new bridge. The revised budget is \$2.047 billion.
- A decrease of \$55.8 million in the budget for the Skyway contract due to savings after contract closeout. The construction was completed in 2008.
- A decrease of \$38.7 million in the budget for the SAS Marine Foundation (E2/T1) contract due to savings after contract closeout. The construction was completed in 2008.
- In June 2008, the TBPOC approved a number of changes to the YBI South/South Detour (SSD) contract to better integrate the detour work into the current project schedule and to reduce overall project risks. These changes will mitigate risks related to the tie-in of the detour viaduct to the existing viaduct as well as mitigate the overall schedule risks. The current TBPOC approved contract budget is \$466 million, an increase of \$334 million over the AB 144/SB 66 baseline budget.

All of the approved cost increases discussed above can be funded from a combination of savings from closeout contracts (Richmond-San Rafael, Skyway, and SAS Marine Foundation, OTD1, South-South Detour), and also from the program contingencies.

For additional information, please refer to *Appendix B - TBSRP East Span Only AB 144/SB66 Baseline Budget, Forecasts, and Expenditures through September 30, 2012*, pages 52 - 54 of *Attachment 1 – San Francisco Bay Area, Toll Bridge Seismic Retrofit and Regional Measure 1 Programs, 2012 Third Quarter Project Progress and Financial Update*.

SFOBB ESSSP Risk Management

Caltrans continues to implement comprehensive risk management on all SFOBB ESSSP contracts in accordance with AB 144. Currently, Caltrans and BATA have embarked on an initiative to manage risk jointly. Risk response efforts continue to focus on encouraging responsive bids for future contracts and mitigating the estimated cost and schedule impacts of identified risks. Updates of these risk management activities are included in *Attachment 1 – San Francisco Bay Area, Toll Bridge Seismic Retrofit and Regional Measure 1 Programs, 2012 Third Quarter Project Progress and Financial Update*.

Cost and schedule risk management activities are ongoing for all contracts. The “bottom line” of cost risk analysis is whether the Program Reserve remains adequate to cover project risks. AB144 requires Caltrans to regularly assess the adequacy of the Program Reserve. AB 144 set a \$900 million Program Reserve (also referred to as the Program Contingency). The TBPOC approved Program Contingency is at \$329 million as of the end of the third quarter 2012. See *Table 5 - Toll Bridge Seismic Retrofit Program, Cost History*.

Each contract has a contingency allowance within its budget. The sum of these contingency allowances is compared to the total of capital outlay, capital outlay support and program-wide risks. Any excess of the risks over the contingency allowances represents a potential draw on the Program Contingency (the reserve). As of the end of the third quarter 2012, the potential draw on Program Contingency ranged from about \$60 million to \$200 million, as shown in Figure 1.

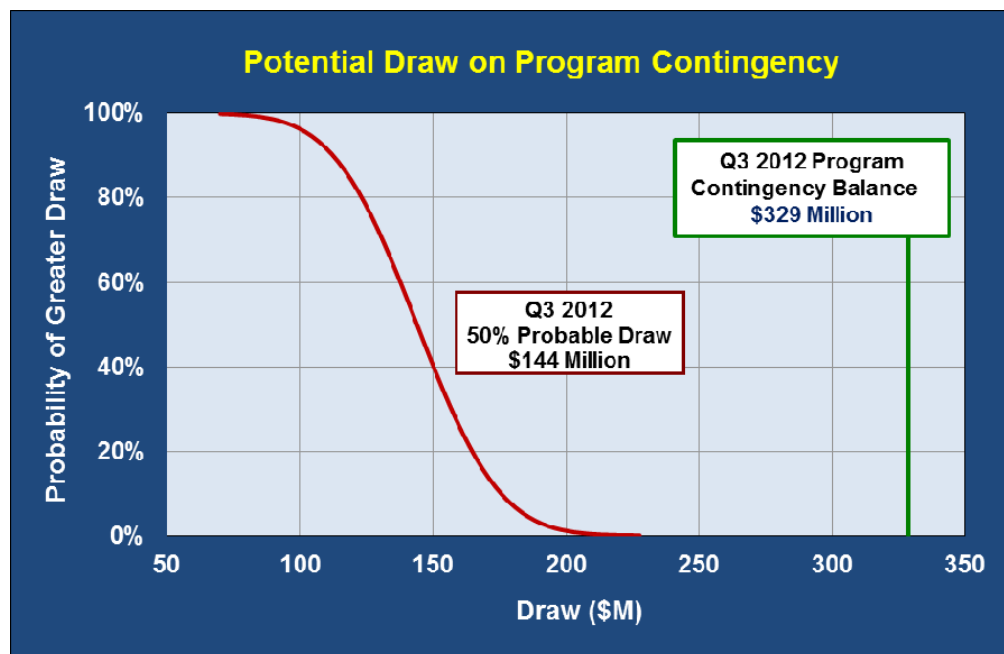


Figure 1. Potential Draw on Program Contingency

The Program Contingency is currently sufficient to cover the cost of identified risks.

Figure 2 shows the risk trend since 2007.

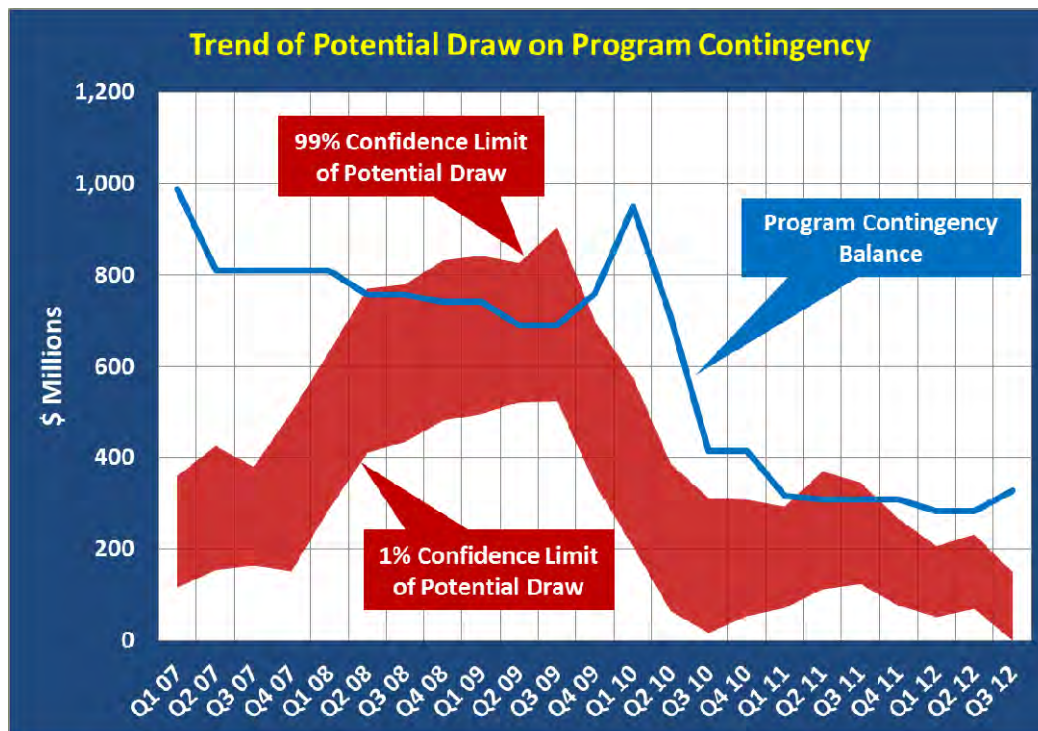


Figure 2 – Risk trend

The solid area depicts the range of the total cost of all capital outlay, capital outlay support and program-wide risks. Total Contingency is the sum of remaining contingency allowances of the contracts plus the balance in the Program Contingency.

Since the 2011 Financial Update, the risk cost range has narrowed while the Program Contingency balance has increased due to the successful completion of some projects under budget. The Program Contingency is sufficient to cover the cost of identified risks.

Risk Management Milestones

The next major activities on the critical path to bridge opening include completing load transfer, wrapping the cable, painting the cable and suspenders, and installing the cable electrical systems. The Cable Erection Risk Management team has been meeting weekly for the past three years to resolve potential cable issues and many of their recommendations have been implemented, resulting in a reduction of many risks.

During a full weekend closure of the Dumbarton Bridge over the Labor Day weekend, the bridge was raised to facilitate the placement of the isolation bearings and the new seismic joint. Careful planning and implementation of risk mitigation actions has resulted in this contract staying on schedule and under budget.

Aggressive planning for the future East Span dismantling work is underway. Project scope is being refined and the most prudent and efficient procurement strategy for the dismantling work has been selected. In the second quarter of 2011, the TBPOC decided that the dismantling of the Cantilever section will be included in the YBITS #2 contract to expedite the delivery of the on-ramps and the bike path. In the first quarter of 2012, the Risk Management team determined that dividing the rest of the dismantling into two contracts would mitigate potential delays: the

remaining steel superstructure dismantling work would be on one contract and the marine substructure work would be on another contract.

Major Risk Responses

Risk identification, updating and mitigation activities are ongoing on all contracts in the project.

1. SAS Contract

Cost risks on the SAS contract continue to trend downward due to progress made with installation of cable and suspenders. The schedule risks associated with completing the cable system, load transfer, and the corridor systems required for bridge opening have also reduced. Teams are actively engaged in each of these areas to mitigate the risks to the greatest extent possible.

2. SAS Cable Installation

The next major activities on the critical path to bridge opening include completing load transfer, wrapping the cable, painting the cable and suspenders, and installing the cable electrical systems. The Cable Erection Risk Management team has been meeting weekly for the past three years to resolve potential cable issues and many of their recommendations have been implemented, resulting in a reduction of many risks.

3. YBITS/SAS Hinge Closure

After the risk management team elevated concerns about coordinating the construction activities of the two contractors at the Hinge K area after load transfer, the TBPOC shifted the Hinge K work to the SAS contract. This eliminated the coordination risk between the two contracts and effectively removed the Hinge K work from the critical path to bridge opening.

4. Bridge Opening

The corridor schedule risk analysis in the third quarter of 2012 indicates a substantial reduction in the 50% probable schedule risk to bridge opening. This reduction in schedule risk is due to progress made in cable system installation, and the retirement of associated risks. The seismic safety opening milestone will be achieved when the bridge is open to all traffic in the westbound and eastbound directions, planned for Labor Day weekend of 2013. Teams are actively engaged to mitigate the remaining schedule risks to the greatest extent possible.

Summary

The enactment of AB 144 provides the financing necessary to complete the TBSRP as quickly as possible. The bill required the Department and BATA to amend the cooperative agreement to incorporate certain oversight and control responsibilities of each agency. The bill also required the formation of a Toll Bridge Program Oversight Committee, comprised of the Director of the Department, the Executive Director of the BATA, and the Executive Director of the CTC.

All of these requirements have been met. In addition, AB 144 specifies BATA has financial control of the program while the Department has the responsibility for construction. The bill provides that any further cost increases must be paid by BATA.

BATA has the authority to increase tolls to fund these potential cost increases, if necessary. The bill gives BATA control of all three existing dollars and the new fourth dollar imposed on January 1, 2007.

The following attachment incorporated by reference to this annual update:

Attachment 1 - San Francisco Bay Area, Toll Bridge Seismic Retrofit and Regional Measure 1 Programs, 2012 Third Quarter Project Progress and Financial Update.

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Stephen Maller, Deputy Director, CTC

RE: Agenda No. - 4a
Program Issues
Item- Bay Bridge East Span Opening Update

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

A verbal update on the Bay Bridge New East Span opening celebration will be provided at the TBPOC February 6 meeting.

Attachment(s):

N/A

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Program Management Team (PMT)

RE: Agenda No. - 4b
Program Issues
Item- Public Information Office (PIO) Update

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

A verbal update on the status of the PIO contract will be provided at the TBPOC February 6 meeting.

Attachment(s):

N/A

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Ali Banani, Caltrans; Peter Lee, BATA

RE: Agenda No. - 4c

Item- Program Issues
TBSRP COS Update and FY 2013 – 14 Allocation Request

Recommendation:

APPROVAL

Cost Impacts:

No impact, current allocation is within the program COS budget.

Schedule Impacts:

None.

Discussion

Staff requests TBPOC approval of the FY 2013-14 COS Allocation Request of \$62.4 million for the program.

FY 2012-13 COS Update

For FY 2012-13, the TBPOC approved a TBSRP program COS allocation of \$89.5 M. Based on expenditures through December 2012, staff is projecting an overrun of \$2.6 million in the allocation. The overrun is due to approximately 7% increase in indirect cost rate, and additional work.

Table 1 - FY 2012-13 COS Allocation and Forecast
\$ in millions

Project	FY 2012-13 COS Allocation	FY 2012-13 COS Forecast	Difference
SFOBB East Span Replacement	\$82.8	\$84.2	\$1.4
Antioch Bridge Retrofit	\$ 0.2	\$ 0.4	\$0.2
Dumbarton Bridge Retrofit	\$6.5	\$7.5	\$1.0
TBSRP Total	\$89.5	\$92.1	\$2.6

FY 2013-14 COS Allocation Request

For next fiscal year, the Department is requesting an allocation of \$62.4 million for the entire TBSRP program, including the Dumbarton Bridge and the East Span. With TBPOC approval, the Department will forward the allocation request for BATA approval. Below is the COS request by project for next FY as compared to the forecast for this FY.

Table 2 - FY 2013-14 COS Allocation Request
\$ in millions

Project	FY 2012-13 COS Forecast	FY 2013-14 COS Request	Difference
SFOBB East Span Replacement	\$84.2	\$62.0	-\$22.2
Antioch Bridge Retrofit	\$ 0.4	\$ 0.0	-\$0.4
Dumbarton Bridge Retrofit	\$7.5	\$ 0.4	-\$7.1
TBSRP Total	\$92.1	\$62.4	-\$29.7

Forecast at Completion

The FY 2013-14 allocation of COS funds is within current COS budget at the program level.

Based on the Q3 2012 analysis, we estimate about \$62M in risk to the current approved budget for East Span project.

Table 3 – COS Budget and Forecast at Completion
\$ in millions

Project	COS Allocation Budget	COS Forecast 3rd Quarter 2012	Difference
SFOBB East Span Replacement	\$1,222	\$1,284	+\$62.0
Antioch Bridge Retrofit	\$31.0	\$24.5	-\$6.5
Dumbarton Bridge Retrofit	\$56.0	\$56.0	-

Attachment(s):

COS Update Presentation

COS Update

February 2013



THE SAN FRANCISCO-OAKLAND
BAY BRIDGE
SEISMIC SAFETY PROJECTS

CALTRANS

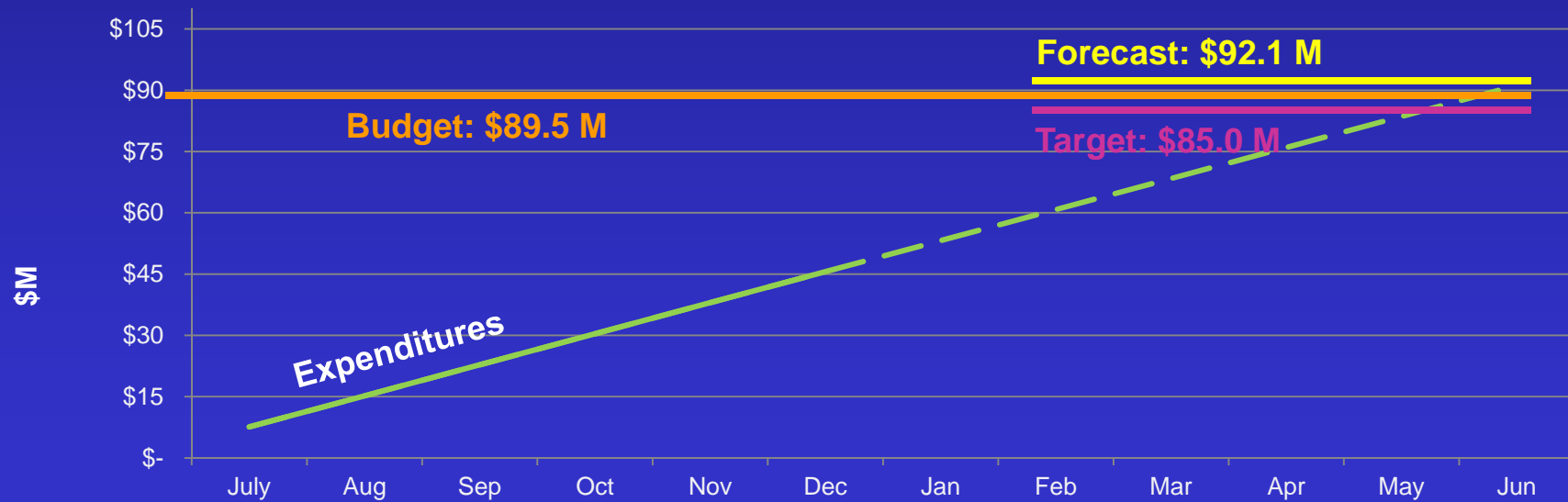
BAY AREA TOLL AUTHORITY

CALIFORNIA TRANSPORTATION COMMISSION

Toll Bridge Seismic Retrofit Program

FY Forecast

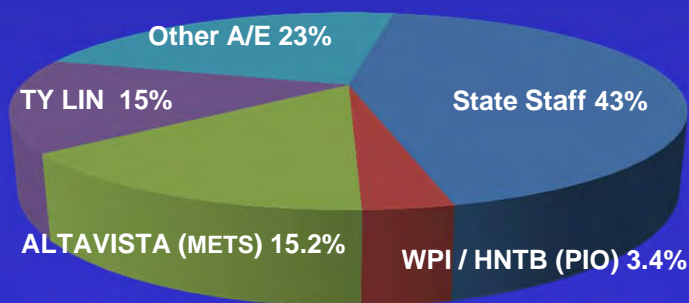
	FY Budget	Expenditures Thru 12/ 2012	FY Forecast	Budget Variance
SFOBB	\$ 82.8 M	\$41.5 M	\$ 84.2 M	\$1.4 M
Antioch	\$ 0.2 M	\$ 0.4 M	\$ 0.4 M	\$0.2 M
Dumbarton	\$ 6.5 M	\$ 4.9 M	\$ 7.5 M	\$1.0 M
Total	\$ 89.5 M	\$ 46.8 M	\$ 92.1 M	\$2.6 M



SFOBB Expenditure Analysis

Category	Budget	FY Expenditures * Thru Dec 2012	FY Forecast	Budget Variance
State Staff	\$34.6 M	\$18.0 M	\$36.0 M	\$ 1.4 M **
TY Lin International	\$15.0 M	\$ 6.1 M	\$12.1 M	- \$ 2.9 M
ALTAVISTA (METS)	\$ 6.8 M	\$ 6.3 M	\$12.0 M	\$ 5.2 M
WPI / HNTB (PIO)	\$ 4.4 M	\$ 1.4 M	\$ 1.4 M	- \$ 3.0 M
BATA PIO Support	\$ 0.0	\$ 0.0	\$ 0.4 M	\$ 0.4 M
A/E Others	\$22.0 M	\$ 9.7 M	\$22.3 M	\$ 0.3 M
Total	\$ 82.8 M	\$ 41.5 M	\$ 84.2 M	\$ 1.4 M

E. Span Expenditure Composition



* Expenditures are an estimate based on A/E invoices and late time sheets for services performed thru Dec 2012

** Increase in Indirect rate from 32.52% to 39.34% results in approximately \$ 2 M increase in expenditure for this FY

FY 12/13 ADDED UNPLANNED WORK

(in millions)

State Staff net Increase	\$ 1.4
ALTAVISTA (METS)	
- Weld database audit	\$ 2.3
- Electroslag weld inspection	\$ 1.7
- East end acceleration	\$ 0.4
- Other	\$ 0.8
ATHALYE Eng. (Archiving)	\$ 0.3
BATA PIO Support	\$ 0.4
Total	\$ 7.3

Antioch/ Dumbarton Expenditure Analysis

Antioch

Category	FY Budget	Exp thru 12/2012	FY Forecast	Budget Variance
State Staff	\$ 0.2 M	\$ 0.4 M	\$ 0.4 M	\$ 0.2 M
A/E	\$ 0.0 M	\$ 0.0 M	\$ 0.0 M	\$ 0.0 M
Total	\$ 0.2 M	\$ 0.4 M	\$ 0.4 M	\$ 0.2 M

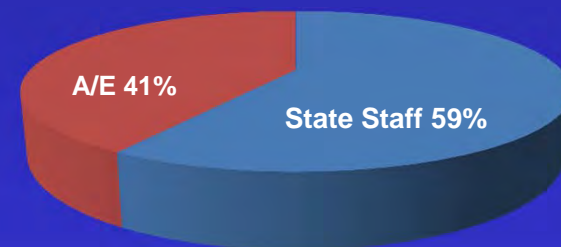
Dumbarton

Category	FY Budget	Exp thru 12/2012	FY Forecast	Budget Variance
State Staff	\$ 3.5 M	\$3.0 M	\$4.3 M	\$0.8 M
A/E	\$ 3.0 M	\$1.9 M	\$3.2 M	\$0.2 M
Total	\$6.5 M	\$4.9 M	\$7.5 M	\$1.0 M

Antioch Expenditure Composition

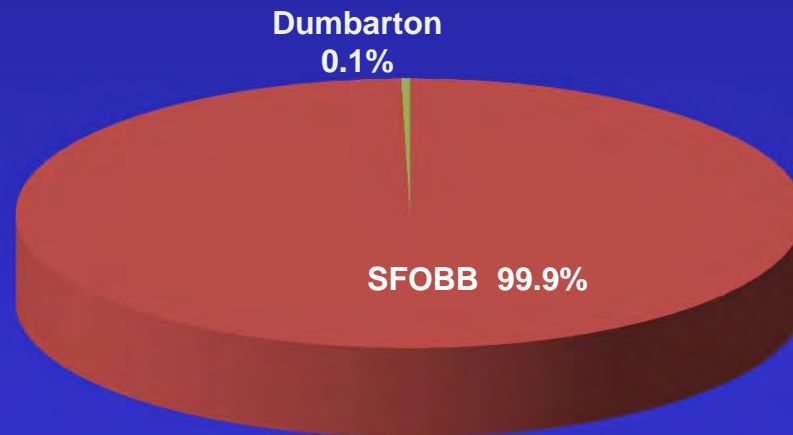


Dumbarton Expenditure Composition



FY 13-14 Proposed Budget

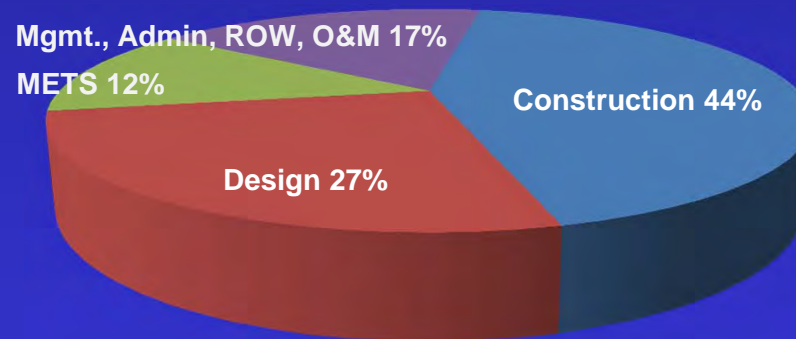
	SFOBB	Antioch	Dumbarton	Total
State	\$ 29.8 M	\$ 0.0 M	\$ 0.4 M	\$ 30.2 M
A/E	\$ 32.2 M	\$ 0.0 M	\$ 0.0 M	\$ 32.2 M
Total	\$ 62.0 M	\$ 0.0 M	\$ 0.4 M	\$ 62.4 M



FY 13-14 Budget Breakdown

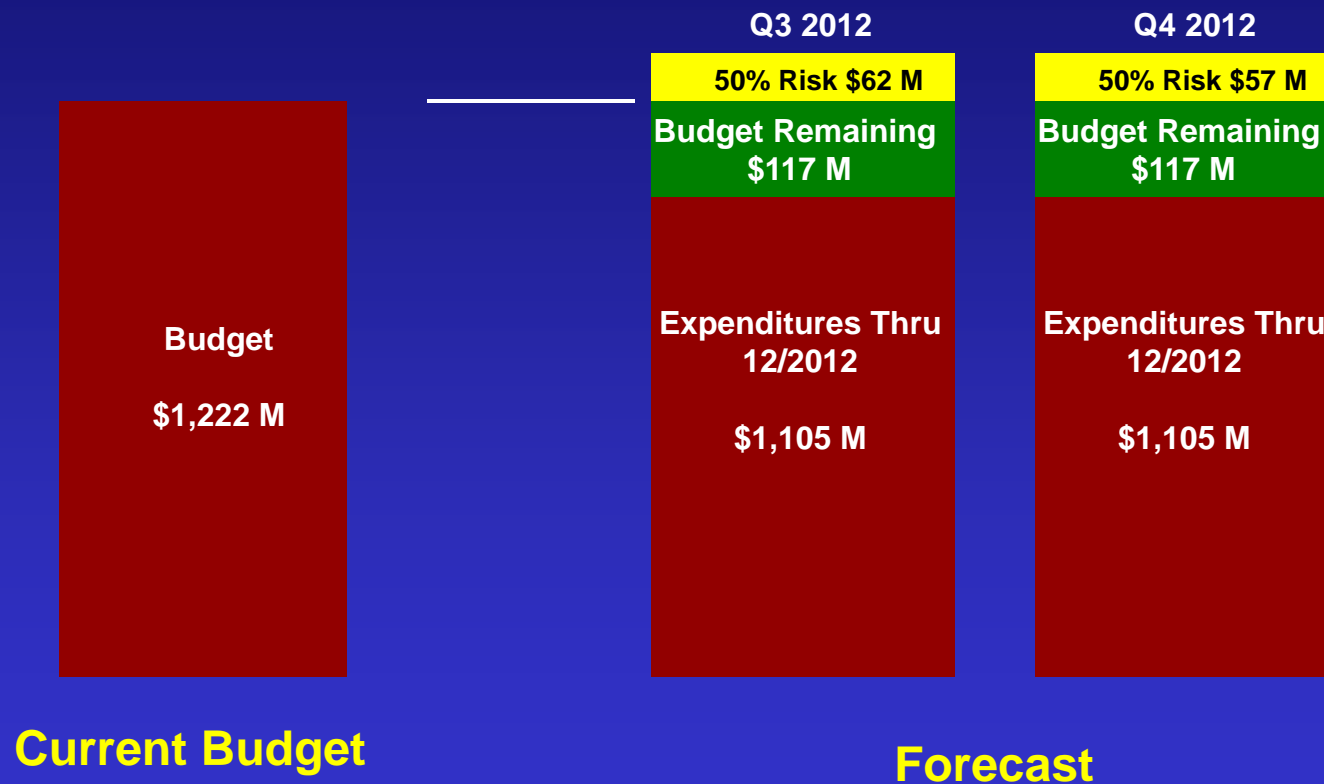
	FY 12-13 Forecast	FY 13-14 Proposed	Change From Prior Year
■ Construction	\$ 35.8 M	\$ 27.2 M	- \$ 8.6 M
■ Design	\$ 26.0 M	\$ 16.6 M	- \$ 9.4 M
■ METS	\$ 14.5 M	\$ 7.3 M	- \$ 7.2 M
■ Mgmt, Admin, ROW, O&M	\$ 15.8 M	\$ 11.3 M	- \$ 4.5 M
Total	\$ 92.1 M	\$ 62.4 M	- \$ 29.7 M

FY 13-14 Budget Breakdown



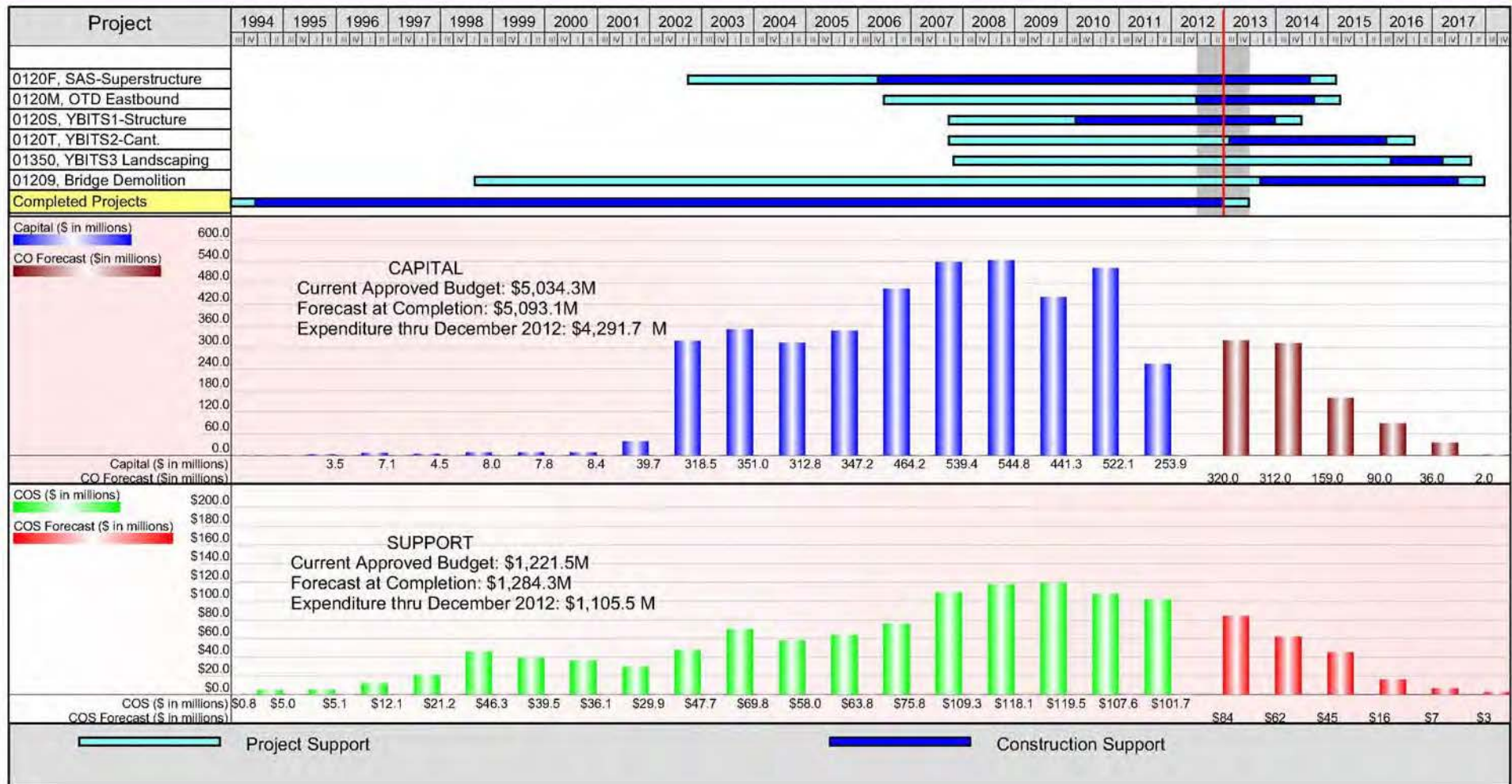
SFOBB East Span COS Forecast

50% Risk Forecast for Q3: \$1,284 M
50% Risk Forecast for Q4: \$1,279 M



CO & COS Cashflow for East Span Projects

Expenditures thru December 2012



Memorandum

TO: Toll Bridge Program Oversight Committee **DATE:** January 30, 2013
(TBPOC)

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 4d
Program Issues
Item- Sawtooth Building Improvements Funding Update

Recommendation:

APPROVAL

Cost:

TBD

Schedule Impacts:

N/A

Discussion:

This item will be distributed separately at a later date.

Attachment(s):

N/A

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Program Management Team
(Presenter: Andrew Fremier, BATA)

RE: Agenda No. - 4d
Program Updates
Item- Sawtooth Building Improvements Funding Update

Recommendation:
APPROVAL

The PMT requests direction to proceed with the following SAS Contract Change Orders and the additional COS funds:

1. Relocation of all Bridge Maintenance Staff (excluding Paint Shop staff)
NTE: \$200,000
2. Sawtooth Building Preliminary Foundation Investigation
NTE: \$900,000
3. Soft Demolition of Sawtooth Facility Interior
NTE: \$300,000
4. Additional COS funds to support the Sawtooth Building and site improvements and seismic building upgrades.
Additional funds: \$590,000

TOTAL COST FOR EARLY WORK: \$1,990,000

Cost:

Early Work: \$1,990,000

Building (non-seismic) and site improvements: \$4,000,000

Seismic building upgrades: \$4,000,000

Risk Costs: \$2,000,000

Schedule Impacts:

The goal is to have the Sawtooth building ready for use in time for Seismic Safety Bridge Opening for the availability of necessary storage of the New East Span bridge replacement parts and a training facility for the Maintenance staff to learn and perform their duties in maintaining the new bridge once it is open to the public.

Discussion:

As a follow up discussion from the last TBPOC meeting, dated 1/8/13, staff has confirmed the eligibility of Phase III funds (Sawtooth Building) of the Maintenance Complex for the current Sawtooth Improvement project.

The Maintenance Complex project is broken up into three separate phases: Phase I is the construction of the primary Maintenance Operation building which will begin construction soon; Phase II is the construction of the District/Toll Bridge Maintenance Warehouse; Phase III is the construction of the Maintenance Training Facility and storage of SFOBB parts and materials located at the existing Sawtooth Building.

The funding breakdown is as shown in the tables below (\$ in thousands):

Table A: Maintenance Complex Project Cost Breakdown

	Delivery	Current	Total (Budget)		
	Fiscal Year	Estimates	COS	CO	Total
Phase I	2012/13	\$53,000	\$10,050	\$43,000	\$53,050
Phase II	2013/14	\$26,856	\$5,456	\$21,400	\$26,856
Phase III	2013/14	\$20,216	\$3,453	\$13,286	\$16,739
Sub-Total		\$102,122	\$18,959	\$77,686	\$96,645
Grand Total		\$102,122	\$96,645		\$96,645

Table B: Maintenance Training Facility and SFOBB Storage Space at Sawtooth (Phase III) Cost Breakdown

	Scope	Amount
1	Retrofit of the Building, including Foundation	\$ 4,000,000
2	20,000SF of Office Space / Training Classes / Auditorium (Including Roof / Interior and exterior remodeling)	\$ 6,450,000
3	Parking Lot improvement / Striping	\$ 620,000*
	Subtotal	\$11,100,000
	20% Contingency	\$ 2,200,000
	Grand CO Total	\$ 13,300,000

* Parking Lot scope has increased since then to include the space all the way to Phase I parcel;
Parking lot cost is expected to triple accordingly

As an acceleration of Phase III work that will provide readiness for public access, the desire is to retrofit the building as a warm shell which would include: perform seismic upgrades, improve the building up to current code (ADA/fire life safety), provide offices in the low bay area, maintain the flexibility of use for a future training facility and improve the parking lot/site.

The intent is to stay on course of Phase I, II and III of the Maintenance Complex project, however, when the State decides to relinquish the building to Gateway Park, other decisions in terms of change in use will be determined then. Therefore, the current proposed work to be performed on the building and site will be adaptable to warehouse space for bridge replacement parts and flexible for a training facility.

Other added benefits to the early use of the Sawtooth building are the following:

- Storage of bridge replacement parts (i.e. suspender ropes, cable band bolts and tensioning equipment, etc.) for the new East Span (Seismic Funds)
- Maintenance Training Facility for staff maintaining the New East Spans (Seismic / BATA Rehabilitation / SHOPP Funds)
- Potential home for displaced Department and consultant Toll Bridge staff and storing and staging of construction materials currently located at Pier 7 should they need to vacate Pier 7 earlier than anticipated.

The Sawtooth Building is currently a state-owned maintenance facility and will likely continue to remain as a state-owned maintenance facility for the foreseeable future.

Because the intent of use for the Sawtooth Building is related to the accelerated work of the Maintenance Complex (Phase III) project and storage of the New East Spans bridge replacement parts, BATA Rehabilitation funds and/or Seismic funds are eligible sources for the early work, totaling to an amount of \$1,990,000 (as items listed above).

The overall estimated amount for total scope of the Sawtooth Building Improvements is \$10,000,000, in which \$4,000,000 is allocated for seismic upgrades, \$4,000,000 for building and site improvements and \$2,000,000 for risk costs. This amount does not include the request for early work of \$1,990,000 as mentioned above.

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** January 30, 2013

FR: Tony Anziano – Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 5a
San Francisco-Oakland Bay Bridge Updates
Item- Corridor Update / Schedule

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

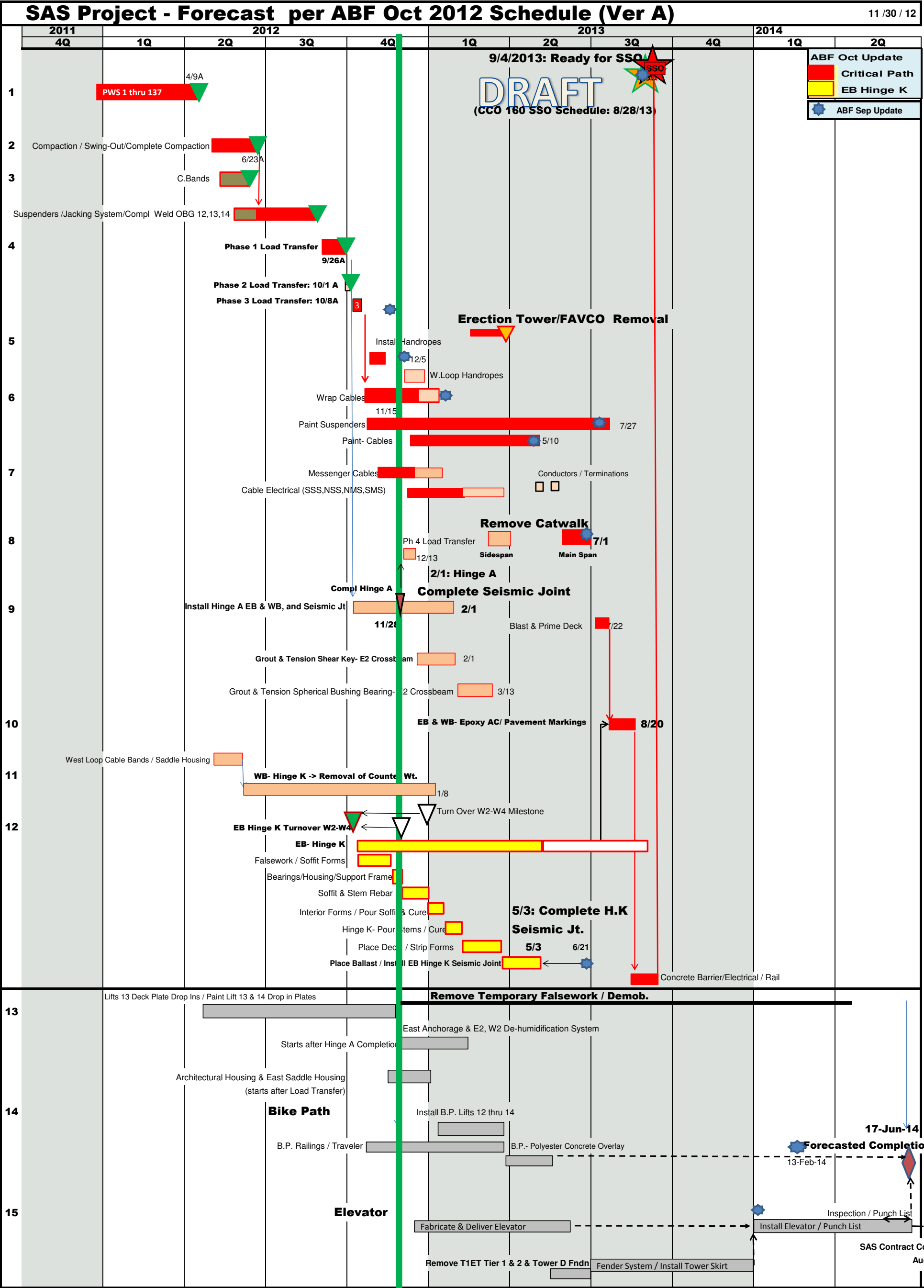
Discussion:

A verbal corridor update will be provided at the TBPOC meeting on February 6, 2013.

Attached are summary schedules for reference and further discussion at the meeting.

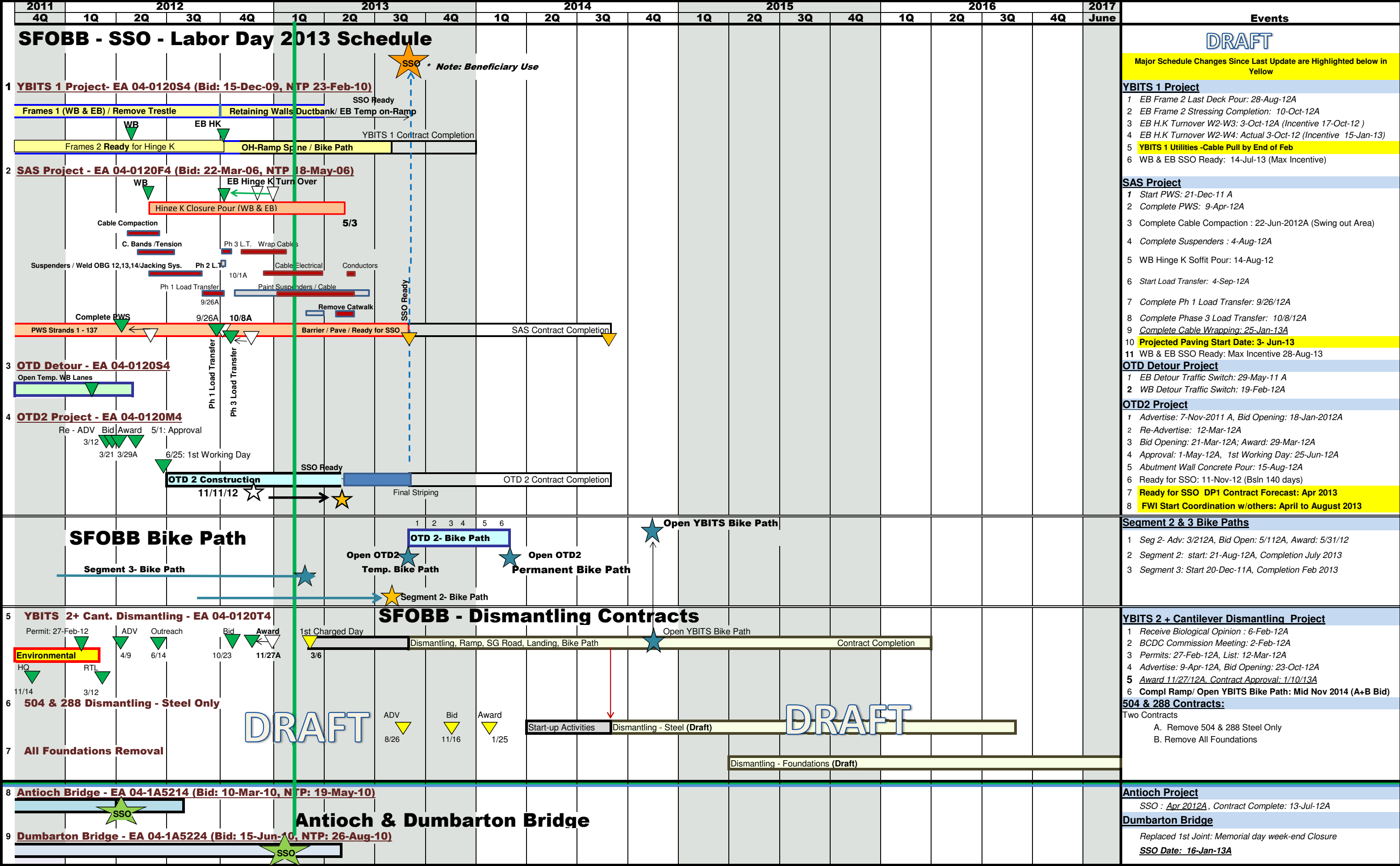
Attachment(s):

1. SAS Project – Forecast per ABF Jan 2013 Schedule (Ver A)
2. Toll Bridge Seismic Retrofit Program – Summary Schedule (SSO)



Toll Bridge Seismic Retrofit Program - Summary Schedule (SSO)

1/31/2013



Memorandum

TO: Toll Bridge Program Oversight Committee **DATE:** January 30, 2013
(TBPOC)

FR: Tony Anziano, Toll Bridge Program Manager, CT

RE: Agenda No. - 5b
San Francisco-Oakland Bay Bridge Updates
Item- Foundation Inspections Update

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

A verbal update on the foundation inspections covering the Benicia-Martinez, Richmond-San Rafael and West Approach spans will be provided at the TBPOC February 6 meeting.

Attachment(s):

N/A

ITEM 6: OTHER BUSINESS

No Attachments